

CONTRACT DOCUMENTS
and
TECHNICAL SPECIFICATIONS

for

SMALL PROJECTS
SITE & ROADWAY IMPROVEMENTS
INDEFINITE QUANTITY CONTRACT

September 2012



City of
Norfolk

Department of Public Works

7th Floor, City Hall Building
Norfolk, Virginia 23510
(757) 664-4631

TABLE OF CONTENTS

CITY OF NORFOLK

SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS INDEFINITE QUANTITY CONTRACT

FRONT-END

Section	Page(s)
Table of Contents	i to ii
Invitation for Bids	1
Instructions to Bidders	1.2-1 to 1.2-4
Bid Form /Affidavit / Schedule of Unit Prices	1.3-1 to 1.3-11
Contract Agreement	1.4-1 to 1.4-6
Performance Bond	1.4-7 to 1.4-10
Payment Bond	1.4-11 to 1.4-12
AIA A201-2007, “General Conditions of the Contract for Construction” (as modified	1 to 49
Federal Labor Standards Provisions – HUD-4010	1 to 5
Davis Bacon Wage Determination of January 6, 2012	1 to 7
Description of Items	1 to 12

TECHNICAL SPECIFICATIONS

Section	Description	Page(s)
2.1	Special Provisions	2.1-1 to 2.1-4
2.2	Traffic Control	2.2-1 to 2.2-5
2.3	Erosion and Sediment Control	2.3-1 to 2.3-2
2.4	Demolition	2.4-1 to 2.4-3
2.5	Earthwork	2.5-1 to 2.5-5

2.6	Storm Drainage	2.6-1 to 2.6-4
2.7	Asphalt Concrete Paving	2.7-1 to 2.7-4
2.8	Concrete Work	2.8-1 to 2.8-6
2.9	Landscaping	2.9-1 to 2.9-15
2.10	Chain Link Fence	2.10-1
2.11	Lighting System	2.11-1 to 2.11-2
2.12	Unit Pavers	2.12-1 to 2.12-4
2.13	Wheel Stops	2.13-1

STANDARD NORFOLK DESIGN DETAILS

HS-101	Standard Curb Inlet
HS-102	Standard Double Curb Inlet
HS-103	Standard Grate Inlet
HS-105	Standard Manhole Cover
HS-106	Fabric Joint Wrap
HS-201	Standard 7" Parkway Curb
HS-202	Standard 7" Curb and Gutter
HS-204	Standard Roll-Type Curb and Gutter
HS-205	Standard Valley Gutter
HS-207	Standard Residential Driveway Apron
HS-208	ADA Variation of Driveway Apron
HS-209	Standard Residential Driveway Apron Without Curb and Gutter
HS-301	Standard Pavement Replacement Asphalt Over Stone
HS-302	Standard Pavement Replacement Asphalt Over Concrete
HS-303	Standard Pavement Replacement Concrete
HS-304	Concrete Pavement Doweling Detail
HS-601	Standard Grass Planting Detail
HS-602	Standard Tree Protection Detail
	Pole Foundation Detail

End of Page



Posting Date: September 28, 2012

**INVITATION FOR BIDS
CITY OF NORFOLK - DEPARTMENT OF PUBLIC WORKS**

**PROJECT: SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS – INDEFINITE QUANTITY
CONTRACT**

Owner: City of Norfolk
Department of Public Works
810 Union Street, Room 700
Norfolk, VA 23510
Contact: Tammy Halstead
Tel: (757) 664-4632

Sealed bids are to be received in Public Works Department, Attn: Contracts Office, Room 700, 7th floor, City Hall Building, 810 Union Street, Norfolk, VA 23510 until **2:00 p.m., Tuesday, October 23, 2012**, for the above titled Project.

The Work under this Project consists of improvements and repairs to the City of Norfolk's Right-of-Ways and public facilities including miscellaneous concrete items and drainage. Projects may include new construction, rehabilitation of existing structures, or utility cut repairs. Some projects may be federally funded therefore full compliance with the Davis-Bacon Act will be required. This is an annual Indefinite Quantity Contract.

Bidding Documents are available from the Department of Public Works in accordance with the Instructions to Bidders upon non-refundable payment of **\$5.00 per CD set** in the form of a check made payable to Treasurer, City of Norfolk. Cash payments will not be accepted. A copy of the Bidding Documents will be on file and open to inspection at The Builders and Contractors Exchange, Inc., Norfolk, VA (757-858-0680), The Builders and Contractors Exchange, Inc., Richmond, VA (804-353-2788), McGraw-Hill Construction-Dodge, Richmond, VA (804-343-2034), Reed Construction Data, Norcross, GA (800-641-4653), Valley Construction News, Richmond, VA (804-674-0118), and Hispanic Contractors Association-Carolinas, Columbia, SC (877-227-1680 ext. 8054).

A Bid Bond, certified check, or cashier's check made payable to the Treasurer, City of Norfolk, for 5% of total bid must accompany each bid. State Contractor registration class and number is required on the outside of the envelope. The City reserves the right to cancel the bid opening or to reject any or all bids in whole or part, when it is in the best interest of the City. The right to waive informalities and to determine responsiveness of any bid and responsibility of all bidders is reserved to the City. Withdrawal of bids will be in accordance with Section 33.1-42.1 of the Norfolk City Code and Section 11-54 of The Code of Virginia, 1950 (as amended).

John M. Keifer
Director

The Virginian Pilot – September 30, 2012
DemandStar – September 30, 2012

INSTRUCTIONS TO BIDDERS

1. SUBMISSION OF BIDS

- (a) Make all bids on "Bid Form" and seal in opaque envelope. The name of project, the contractor's name, address, and Virginia Contractor Registration Class and Number shall be placed on the outside of the envelope.
- (b) If a contract is for \$120,000.00 or more, or if the total value of all such construction, removal, repair, or improvements undertaken by the bidder within any 12 month period is for \$750,000.00 or more, the bidder is required under Title 54, Chapter 11, Code of Virginia, 1950 (as amended), to show evidence of being licensed as a Class A Contractor. If a contract is \$7,500.00 or more, but less than \$120,000.00, or if the total value of all such construction, removal, repair or improvements undertaken by the bidder within any 12 month period is less than \$150,000, the bidder is required to show evidence of being licensed as a Class B Contractor. If a contract is \$1,000 or more, but less than \$7,500, or if the total value of all such construction, removal, repair or improvements undertaken by the bidder within any 12 month period is less than \$150,000, the bidder is required to show evidence of being licensed as a Class C Contractor. The bidder shall place on the bid above its signature its Virginia Contractor Registration Class and Number. If a contract is less than \$1,000.00, licensure is not required under Title 54, Chapter 11, Code of Virginia, 1950 (as amended).
- (c) If bids are submitted by mail, enclose the above noted envelope in a second sealed, opaque envelope and address to: **City of Norfolk, Department of Public Works, Attn: Contracts Office, Room 700, 7th floor, City Hall Building, 810 Union St., Norfolk, VA 23510.** Bids submitted by mail must be received at the above address before the time designated for bid opening.
- (d) Fully fill in all blanks in ink or typewritten, and state numbers in both writing and figures. Signatures shall be in longhand with name and title printed below. Bidders shall acknowledge all addenda in spaces provided on the bid form. For unit price contracts, in the event of a discrepancy between the Total Base Bid and the total of the extension of unit prices, the total extension of unit prices governs in determining the bid amount.
- (e) Interlineations, alterations, and irregularities of any kind may be cause for rejection of the bid. Erasures or any physical changes on the form shall be initialed by the Bidder.
- (f) Bidders may withdraw a bid after it has been submitted to the City any time prior to the stipulated time for opening such bids. Withdrawal of bids will be in accordance with Section 33.1-42.1 of the Norfolk City Code and Section 11-54 of the Code of Virginia, 1950 (as amended).

2. EXAMINATION OF SITE

The bidder shall be responsible for having ascertained all pertinent local and existing conditions determinable by inspection and inquiry both on the site and adjacent thereto, including any other work being performed thereon, and shall include in its bid all cost attendant upon problems arising from said conditions existing at the time of submission of its bid.

Reference is made to the Contract Documents for information relating to reports, explorations, underground facilities, and easements. On request, the owner will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests and studies as each Bidder deems necessary for submission of a Bid. The Bidder must fill all holes, clean up, and restore the site to its former condition upon completion of such explorations, investigations, tests and studies, and hold the Owner harmless from any damage to property or injury to persons resulting from or arising out of such explorations, investigations, tests, and studies.

3. INQUIRIES, INTERPRETATION AND ADDENDA

Should a bidder find discrepancies in, or omissions from, the drawings or documents, or should it be in doubt as to their meaning, it should at once notify the Owner in writing. The Owner will welcome such inquiries and they will be given consideration. Every interpretation made by the Owner will be in the form of a printed addendum which will be on file in the office of the Owner. Addenda will be sent to each bidder, but it will be the bidder's responsibility to know of, examine and become familiar with all addenda issued. All addenda shall become a part of the Contract Documents. The Owner will not be responsible for any oral instruction.

The submission of a Bid will constitute inconvertible representation by the Bidder that the Bidder has complied with every requirement of this Section, that without exception, the Bid is premised upon the agreement by the Bidder to perform the Work required by the Contract Documents, and applying specific means, methods, techniques, sequence or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that the Bidder has given Written Notice to the Owner of all conflicts, errors, ambiguities, and discrepancies that the Bidder has discovered in the Contract Documents and the written resolutions thereof by the Owner is acceptable to the Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions of performance and furnishing the Work.

4. BID GUARANTEE

Bids shall be accompanied by a bid guarantee of five percent (5%) of the amount of the total bid including all additive alternates, if any, and may be a certified check or cashier's check or a Bid Bond, made payable to: **Treasurer, City of Norfolk**. Such bid bond or check shall be submitted with the understanding that it shall guarantee that the bidder will not withdraw its bid during the period of sixty (60) days following the opening of bids; that if its bid is accepted, it will enter into a Contract with the Owner in accordance with a form of agreement acceptable to and approved by the Owner and that the required Performance and Payment Bonds will be given; and that in the event of the withdrawal of said bid within said period, or failure to enter into said contract and given said bonds within ten (10) days after it has received notice of acceptance of its bid, the bidder shall be liable to the Owner for the full amount of the bid guarantee as representing the damage to the Owner on account of the default of the bidder in any particular thereof. The bid bonds and checks will be returned to the bidders after the Owner and the lowest, responsive, responsible bidder have executed a contract. If the required contract has not been executed within sixty (60) days after the date of the opening of the bids, then the bond or check of any bidder will be returned upon its request, provided it has not been notified of the acceptance of its bid prior to the date of such request.

5. PERFORMANCE AND PAYMENT BOND

The General Contractor shall furnish a Performance Bond and a Labor and Materials Payment Bond in the amount of \$_____. Said bonds shall be delivered to the Owner (in duplicate) and shall be approved by the Owner prior to the execution of a construction contract between the Contractor and the Owner. Bonds shall be City of Norfolk standard form and shall be in accordance with Section 33.1-76 of the Norfolk City Code. All costs of bonds shall be paid by the Contractor. Performance and Payment Bond Riders shall be provided, as requested by the City, whenever the aggregate amount of work orders less amount paid to the Contractor for completed work, exceeds the existing bond amount by \$100,000 or greater.

6. NEGOTIATIONS WITH APPARENT LOW BIDDER

The City reserves the right to negotiate with the lowest, responsive, responsible bidder if the bid exceeds available funds. Negotiations may include reduction in bid price, modification and/or reduction in scope of the work, substitution of materials, or any other alterations to the work so that the low bid is reduced to within available funds including a reasonable fund balance for contingency funds to be available during the course of construction.

7. TIME OF COMPLETION

(a) All work shall be completed within the allotted calendar days as detailed in each specific Work Order issued commencing from the date of Notice to Proceed of said Work Order.

(b) Work shall not commence until the Contractor has received a fully executed copy of the Contract which authorizes the Work and has also received a Notice to Proceed issued by the authorized City representative. Work commenced prior to receipt of both a fully executed copy of the Contract and a written Notice to Proceed from an authorized City official shall be deemed unauthorized and such work will progress solely at Contractor's risk.

(c) Liquidated Damages: The date of beginning and the time of completion as specified in the contract for the work to be done hereunder are essential conditions of the contract. If Contractor shall neglect, fail, or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, liquidated damages for such breach of contract shall be assessed the Contractor in the amount established by the City for each work order per calendar day for each day that the Contractor shall be in default after the date stipulated in the Contract for completion.

8. NON-DISCRIMINATION CLAUSE

The Contractor agrees to comply, and to require all suppliers and subcontractors paid in whole or in part from funds made available under this contract to comply with Section 122(a)(1) of the State and Local Fiscal Assistance Act of 1972 (P. L. 92-512), as amended, to wit:

"No person in the United States shall, on the grounds of race, color, national origin, or sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity of a State government or unit of local government, which government or unit receives funds made available under Subtitle A (of Title I of the Act.)

Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975 or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973 shall also apply to any such program or activity.

Any prohibition against discrimination on the basis of religion, or any exemption from such prohibition, as provided in the Civil Rights Act of 1964 or Title VIII of the Act of April 11, 1968, hereafter referred to as the Civil Rights Act of 1968, shall also apply to any such program or activity."

Further, the Contractor agrees to comply with Section 33.1-53 of the Code of the City of Norfolk, Virginia 1979, as amended, regarding prohibited employment discrimination.

9. MINORITY BUSINESS CLAUSE

It is the policy of the City of Norfolk to facilitate the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in the City's procurement activities. Toward that end, the City encourages these firms to compete and encourages non-minority firms to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. Bidders (offerors) are asked, as part of their submission, to describe any planned use of such businesses in fulfilling this contract.

10. NON-COLLUSION AFFIDAVIT

(a) Every bidder, by submitting a bid, shall be deemed to covenant, with regard to said bid, as follows:

(1) that said bid was arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.

(2) that, unless otherwise required by law, the prices which have been quoted in the bid submitted have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.

(3) that no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where the bidder shall have failed to comply with a(1), a(2), or a(3) above.

(b) Every bidder, in addition to making the above covenants (a)(1), (a)(2) and (a)(3) will be required to provide the City of Norfolk, with the bid submitted, the affidavit contained herein.

(c) Every bidder will be required to disclose, with the submitted bid, the following information:

(1) the correct mailing address of the bidder.

(2) if a corporation, the name and current mailing address of the President, the Secretary and the Treasurer of the corporation.

(3) if a partnership, proprietorship or other firm, the name and current mailing address of each partner, proprietor or member of said firm.

(4) whether or not the bidder is associated with; owns, in whole or in part; or is owned, in whole or in part, or is a subsidiary of, any other bidder.

(d) The fact that a bidder (1) has published price lists, rates or tariffs covering items included in the submitted bid; (2) has informed prospective customers of proposed or pending publication of new or revised price lists for such items; or (3) has sold the same items to other customers at the same prices being bid, does not constitute a disclosure within the meaning of Subparagraph 9(a).

(e) Any bid submitted by a corporate bidder shall be deemed to have been authorized by the Board of Directors of the bidder and such authorization shall be deemed to include the signing and submission of the bid and the execution of the affidavit required in (b) above as the acts and deeds of the corporation.

11. SUBSTANCE ABUSE AND DRUG-FREE WORK PLACE

The Contractor agrees to comply with Section 33.1-58 of the Code of the City of Norfolk, Virginia, 1996, as amended, regarding substance Abuse and Drug-Free Work Place Policy.

Bids to be opened:	2:00 p.m., Tuesday October 23, 2012
Work to be Completed in:	Specified per Work Order
Liquidated Damages:	Specified per Work Order
Performance Bond:	\$500,000
Payment Bond:	\$500,000
Bid Bond:	5%

BID FORM

To: City of Norfolk
Department of Public Works
810 Union Street, Room 700
Norfolk, Virginia 23510

A. UNIT PRICE BID

In compliance with the Invitation for Bids and Instructions to Bidders, the General and Supplementary Conditions of the Contract, the contract drawings and specifications titled **SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS – INDEFINITE QUANTITY CONTRACT** and all addenda issued to date, all of which are part of this bid, the undersigned hereby proposes to furnish all items, including materials, labor, and equipment called for by, and in strict accordance with Contract Documents and the list of unit prices hereto attached and referred to as Attachment A, for the sum of:

\$_____Dollars (\$_____).
(Use words)

B. ADDENDA

The undersigned acknowledges receipt of the following addenda:

Addendum No. _____Dated: _____

Addendum No. _____Dated: _____

We agree to enter into a contract with the City of Norfolk, Virginia within ten (10) days of the award of same to us for the price named in our bid.

It is expressly agreed by us that the City of Norfolk, Virginia shall have the right to reject any and all bids and to waive any informalities.

In default of the performance on our part of the conditions of bid, our failure to enter into a contract with the City of Norfolk, Virginia, within the time above set, we herewith furnish a certified check, cashier's check (or Bid Bond) in the amount of \$_____, which shall be forfeited as liquidated damages to the City of Norfolk, Virginia, but otherwise the said check or Bid Bond shall be returned.

We agree to begin work at any time after receipt of the Notice to Proceed from the Director of Public Works and complete all of the Work within **Three Hundred Sixty Five (365)** calendar days.

D. Norfolk Businesses: It is the policy of the City to support Norfolk businesses and workforce development and it encourages companies with corporate offices in Norfolk and which employ Norfolk residents to compete for City contracts. Bidders are asked, as part of their submission, to advise of their Norfolk location and detail their employment of Norfolk residents.

E. Equal Opportunity Business Development: It is the policy of the City of Norfolk to facilitate the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in the City's procurement activities. Toward that end, the City encourages these firms to compete and encourages non-minority firms to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and other contractual opportunities. Bidders (offerors) are asked, as part of their submission, to describe any planned use of such businesses.

1. Is your firm a minority owned business? Yes ___ No ___ If yes, please check the appropriate category: ___ African American (male), ___ African American (female), ___ Caucasian (female), ___ Hispanic (male), ___ Hispanic (female), ___ Asian American (male), ___ Asian American (female), ___ American Indian (male), ___ American Indian (female), ___ Eskimo (male), ___ Eskimo (female), ___ Aleut (male), ___ Aleut (female), ___ Other (male), ___ Other (female).

2. Subcontracting Opportunities for Small, Women Owned, Minority Business Enterprises and Disabled Veterans. All prime contractors are requested to furnish the following information regarding participation of small, women owned, minority business enterprises and disabled veterans:

a. Proposed Name of your Subcontractor(s):

b. Proposed Minority Category of Subcontractor(s) - please check the appropriate category(ies):

<input type="checkbox"/> African American (male)	<input type="checkbox"/> African American (female)
<input type="checkbox"/> Hispanic (male)	<input type="checkbox"/> Hispanic (female)
<input type="checkbox"/> Asian American (male)	<input type="checkbox"/> Asian American (female)
<input type="checkbox"/> American Indian (male)	<input type="checkbox"/> American Indian (female)
<input type="checkbox"/> Eskimo (male)	<input type="checkbox"/> Eskimo (female)
<input type="checkbox"/> Aleut (male)	<input type="checkbox"/> Aleut (female)
<input type="checkbox"/> Other (male)	<input type="checkbox"/> Caucasian (female)
	<input type="checkbox"/> Other (female)

c. Proposed Amount of Subcontracts:

d. Proposed Description of commodity (i.e. masonry, hauling, insulation, etc.):

e. Proposed Description of Project:

f. Proposed Total value of awards to all subcontractors:

g. Proposed Total Number of minority subcontracts awarded:

h. If you do not propose the use of any subcontractors, please check here ____.

f. The undersigned has read all sections under "Instructions to Bidders."

F. CONTRACTOR'S REGISTRATION AND SIGNATURE

Registered Virginia Contractor Class and No. _____

City of Norfolk Business License No. _____

Contractor _____ Signed _____ (SEAL)

Date _____ Title _____

NOTE: If Bidder is a corporation, write state of incorporation under signature and if a partnership, give full names of all partners.

**THIS
PAGE
INTENTIONALLY
LEFT
BLANK**

AFFIDAVIT

City of Norfolk, Virginia project: **Small Projects – Site & Roadway Improvements – Indefinite Quantity Contract**
Bid Date:_____

STATE OF VIRGINIA
(City/County)

This day personally appeared before the undersigned, a Notary Public in and for the City/County and State aforesaid,

_____, who having been first duly sworn according to law, did depose and aver as follows:

(a) That he is _____
(owner, partner, president, etc.)

of _____
(insert name of bidder)

(b) That he is personally familiar with the bid of

_____ submitted in connection with the above captioned City of Norfolk project.

(c) That said bid was formulated and submitted in good faith as the true bid of said bidder.

(d) That said bid in no manner violates the Sherman Antitrust Act (15 U.S.C. '1 *et seq.*), The Virginia Antitrust Act (§59.1-9.1 through §59.1-9.17 Code of Virginia, (1950), as amended) or the Conspiracy to Rig Bids to Government Act (§§59.1-68.8, Code of Virginia (1950), as amended).

And further this deponent saith not.

Affiant

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____, 20____

Notary Public

MAILING ADDRESS, FAX AND TELEPHONE NUMBER OF BIDDER:

IF CORPORATION, PROVIDE NAME AND MAILING ADDRESS AS REQUIRED BELOW

PRESIDENT

SECRETARY

TREASURER

<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

IF PARTNERSHIP, PROPRIETORSHIP, OR OTHER FIRM, PROVIDE NAME AND MAILING ADDRESS OF EACH PARTNER, PROPRIETOR, OR MEMBER OF FIRM.

<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

END OF PAGE

**SCHEDULE OF UNIT PRICES
SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS
INDEFINITE QUANTITY CONTRACT
OWNER: CITY OF NORFOLK**

The unit prices have been computed in accordance with Paragraph 7.3.3.2 of the General Conditions of the Contract, AIA A201-2007, as modified. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents. The prices quoted shall include, without exception, all materials, labor, equipment, appliances, clean-up, applicable sales, use and other taxes, building permits or fees, and the Contractor's labor, overhead, profit, mobilization and other mark-ups, and in full accordance with the Specifications. Include allowance for waste where appropriate. The unit prices shall be maintained throughout the contract period. Unit prices shall be used in determining additions or deductions from the TOTAL CONTRACT AWARD amount in the event of changes in the work.

NO.	ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
1	Curb and Gutter Removal	LF	2000		
2	Concrete Sidewalk and Curb Ramp Removal	SY	2000		
3	Unit Paver Removal	SY	500		
4	Asphalt Sidewalk Removal	SY	250		
5	Concrete Driveway Apron Removal (up to 8 inch thickness)	SY	300		
6	Asphalt Pavement Removal	SY	500		
7	Reinforced Concrete Pavement and Valley Gutter Removal (9 inches thick)	SY	150		
8	Drop Inlet Removal	EA	1		

Attachment A-1

NO.	ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
9	Catch Basin Removal	EA	1		
10	Tree Removal (12" – 23" diameter)	EA	3		
11	Tree Removal (24" – 42" diameter)	EA	1		
12	Excavation (up to 4 feet deep)	CY	150		
13	Norfolk STD. HS-202 (7" curb)	LF	1000		
14	VDOT CG-6 (6" curb)	LF	600		
15	Norfolk STD. HS-201 (Parkway curb)	LF	1000		
16	Norfolk STD. HS-204 (Roll curb)	LF	200		
17	Concrete Driveway Apron Residential (6-inch thick)	SY	300		
18	Concrete Driveway Apron Commercial (8-inch thick)	SY	150		
19	Concrete Sidewalk (Norf. STD. HS- 207)	SY	2000		
20	Concrete Pavement (Norf. STD HS- 303)	SY	100		
21	Valley Gutter (Norf. STD. HS-205)	SY	50		

Attachment A-2

NO.	ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
22	Asphalt Pavement Milling	SY	1000		
23	S-5 Asphalt Pavement Overlay	TONS	1000		
24	S-5 Asphalt Patch includes 3-inch overlay and 6-inch stone base	SY	300		
25	Base asphalt (Type BM-2)	TON	400		
26	Aggregate Base Material VDOT STD. 21A or 22	TON	250		
27	Coarse Aggregate VDOT No. 57 or 68 Stone	TONS	100		
28	Select Fill Material	CY	100		
29	Curb Ramp (VDOT STD. CG-12A, CG-12B, or CG-12C) with truncated domes	EA	100		
30	12-inch RCP Class III	LF	100		
31	15-inch RCP Class III	LF	100		
32	18-inch RCP Class III	LF	100		
33	24-inch RCP Class III	LF	100		
34	Curb Inlet with invert up to 4 ft below grade	EA	3		

Attachment A-3

NO.	ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
35	Curb inlet with invert between 4 and 6 ft below grade	EA	3		
36	Double Curb inlet with invert up to 4 ft below grade	EA	3		
37	Double Curb inlet with invert between 4 and 6 ft below grade	EA	3		
38	Grate Inlet with invert up to 4 ft below grade	EA	3		
39	Grate Inlet with invert between 4 and 6 ft below grade	EA	3		
40	Topsoil	CY	100		
41	Seeding	SY	100		
42	Sod	SY	100		
43	Mulch	CY	50		
44	Inlet Protection	EA	25		
45	Silt Fence	LF	500		
46	Tree Protection	LF	350		
47	Tree Pit	EA	5		

NO.	ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
48	VDOT STD. JB-1C Electrical Junction Box	EA	10		
49	3-inch Electrical Conduit	LF	200		
50	Unit Pavers	SY	100		
51	Traffic Control – Arterial Streets	DAYS	50		
52	Traffic Control – Downtown Area	DAYS	50		
53	Arrow Board	DAYS	50		
54	Relocate Signs	EA	10		
55	Install New Signs	EA	5		
56	Remove/Install Parking Meters	EA	10		
57	Remove/Install Wheel Stops	EA	50		
58	Install New Wheel Stops	EA	20		
59	Install 4' Chain Link Fence	LF	200		
60	Light Pole Foundation (for 13' pole) Downtown	EA	10		

TOTAL UNIT PRICE BID:

_____ (\$ _____)
(Use Words)

CONTRACTORS SIGNATURE DATE

Attachment A-5

THE CITY OF NORFOLK, VIRGINIA

OFFICE OF THE CITY MANAGER

CONTRACT

THIS AGREEMENT, made as of the ____ day of ____ in the year 2012, is between the **City of Norfolk, Virginia**, acting by and through the City Manager, hereinafter styled the **City**, and

party of the second part, hereinafter styled the **Contractor**.

WITNESSETH, That whereas the City has awarded to the Contractor, in accordance with his bid of **October 23, 2012** a contract for **SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS – INDEFINITE QUANTITY CONTRACT** as described in specifications prepared therefor by **The City of Norfolk, Department of Public Works, 810 Union Street, Room 700, Norfolk, Virginia 23510** hereinafter styled the Engineer, and on file in the office of the Director of Public Works of the City of Norfolk, Virginia.

ARTICLE 1 - THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others. Work shall include, but not be limited to, improvements and repairs to the City of Norfolk's Right-of-Ways and public facilities including miscellaneous concrete items and drainage. Projects may include new construction, rehabilitation of existing structures, or utility cut repairs. Some projects may be federally funded therefore full compliance with the Davis-Bacon Act will be required.

ARTICLE 2 - DATE OF COMMENCEMENT AND COMPLETION TIMES

The Contractor further agrees to begin each Work Order at such a date as the Director of Public Works Department, Norfolk, Virginia, shall notify it to begin via a Notice to Proceed letter, and that it will achieve Substantial Completion of each Work Order within the time mutually agreed upon by the Contractor and the Owner as indicated in each Notice to Proceed letter. Work Orders will be issued within **three hundred sixty five (365) calendar days** from the date of contract commencement.

ARTICLE 3 - LIQUIDATED DAMAGES

The Contractor and the City recognize that time is of the essence of this Agreement. In view of the difficulty of ascertaining the loss which the City will suffer by reason of delay in the performance of the Work, the Contractor and the City hereby agree upon as the liquidated damages set below that the City will suffer by reason of delay and/or default, and not as a penalty. Further, the City shall deduct and retain the amount of such liquidated damages out of the moneys which may be due or become due to the Contractor under this Agreement.

Accordingly, should the Contractor fail to achieve Substantial Completion of the aforesaid Work in accordance with the contract documents to the satisfaction and approval of the Architect within the time stipulated in Article 2 above, the Contractor shall pay to the City of Norfolk, Virginia, **0.2 percent of the individual work order's value per day** for every calendar day beyond the time set for substantial completion.

ARTICLE 4 - CONTRACT PRICE

The City shall pay the Contractor for completion of the Work in accordance with the Contract Documents an amount equal to the sum designated per each Work Order. Funds for each individual Work Order will be encumbered when each Work Order is issued. As provided in Subparagraph 7.3.3.2 of the General Conditions of the Contract for Construction (as modified), estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by the Engineer's recommendation to the City.

ARTICLE 5 - PAYMENTS

Based upon monthly applications for payment submitted by the Contractor and as approved by the City, the City shall make progress payments on account of each individual Work Order sum to the Contractor as provided in the conditions of the contract. Full payment or payments shall in no manner be construed as reducing the amount of the bond, or the liability of the surety thereon, until final completion and acceptance of all completed Work Orders in a contract year.

ARTICLE 6 - CONTRACTOR'S REPRESENTATION

To induce the City to enter into this Agreement, the Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents and other related data identified in the Bidding Documents.
- B. Contractor, as a condition of this Contract, will visit the Site and become familiar with and become satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of all Work Orders issued under this Contract.
- C. Contractor, as a condition of this contract, will become familiar with and will become satisfied as to all federal, state and local laws and regulations that may affect cost, progress, and performance of Work Orders issued under this Contract.
- D. Contractor, as a condition of this Contract, will carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site which have been provided with each Work Order, and (2) reports and drawings of a hazardous environmental condition, if any, at the site, which have provided with each Work Order.
- E. Contractor, as a condition of this Contract, will obtain and carefully study (or assume responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous

to the Site which may affect costs, progress, or performance of Work Orders issued under this Contract.

F. Contractor, as a condition of this Contract, will become aware of the general nature of Work to be performed by City and others at the Site that relates to Work Orders issued under this Contract.

G. Contract has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

H. Work Orders issued under this Contract will be generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

I. Contractor hereby certifies that it has familiarized itself with Sections 33.1-86 through 33.1-93 of the Code of the City of Norfolk, Virginia, 1979, as amended, entitled "Ethics in Public Contracting," including the additional statutes set forth in Section 33.1-86 thereof, and further that all amounts received by the Contractor pursuant to this Agreement are proper and in accordance therewith.

J. Contractor hereby certifies that at all times during which any term of this Contract is in effect, it does not and shall not knowingly employ any unauthorized alien. For purposes of this section, an "unauthorized alien" shall mean any alien who is neither lawfully admitted for permanent residence in the United States nor authorized to be employed by either Title 8, section 1324a of the United States Code or the U.S. Attorney General.

K. Contractor hereby represents that it is organized as a stock or non-stock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership and is authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law.

ARTICLE 7 - CONTRACT DOCUMENTS

The Contract Documents consist of the following:

- a. Invitation for Bids
- b. Instructions to Bidders
- c. Bid Form/Affidavit
- d. Bid Bond
- e. Contract
- f. Performance Bond
- g. Payment Bond
- h. AIA A201-2007, "General Conditions of the Contract for Construction" (as modified)

i. Certificate of Insurance

j. Notice of Award

k. Notice to Proceed

l. Change Orders (if any)

m. Other Documents as may be required by law or appended hereto

n. Specifications prepared or issued by the City of Norfolk, Department of Public Works, 810 Union Street, Room 700, Norfolk, Virginia 23510.

o. Addendum (as listed in Bid Form)

Witness the following signatures and seals:

Witness:

Seal if

Incorporated

_____ (SEAL)

By: _____ (SEAL)

President/Vice-President (SEAL)

Contractor's State License No. _____

City of Norfolk Business License No. _____

Contents Approved:

Director of Public Works

Approved as to form and correctness:

Deputy City Attorney

CITY OF NORFOLK, VIRGINIA

By _____
City Manager

Attest: _____
City Clerk

I hereby certify that the money required for this contract (agreement, obligation or expenditure) is in the City Treasury to the credit of the fund from which it is to be drawn, and not appropriated for any other purpose.

Account: _____

Amount: **N/A**

Contract No.: _____

Vendor Code: _____

Director of Finance and Business Services

Date

**THIS
PAGE
INTENTIONALLY
LEFT
BLANK**

PERFORMANCE BOND

Bond No. _____

Amount: **\$500,000**

KNOW ALL PERSONS BY THESE PRESENTS, that _____, hereinafter called the Contractor and _____ a corporation duly organized and existing under and by virtue of the laws of the State of _____, hereinafter called the Surety, and authorized to transact business within the Commonwealth of Virginia as the Surety, are held and firmly bound unto the City of Norfolk as Owner, in the sum of **FIVE HUNDRED THOUSAND DOLLARS and ZERO CENTS (\$500,000.00)**, lawful money of the United States of America, for payment of which, well and truly be made to the Owner, the Contractor and the Surety bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the Contractor has executed and entered into a certain Agreement, hereto attached, with the Owner dated _____, **2012**, for

SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS – INDEFINITE QUANTITY CONTRACT

NOW THEREFORE, if the Contractor, and its successors and assigns, shall at all times duly, promptly, and faithfully perform the Work and any alteration in or addition to the obligations of the Contractor arising thereunder, including the matter of infringement, if any, of patents or other proprietary rights, and shall assure all guarantees against defective workmanship and materials, including the guarantee period following final completion by the Contractor and final acceptance by the Owner and comply with all the covenants therein contained in the Specifications, Drawings, and other Contract Documents required to be performed by the Contractor, in the manner and within the times provided in the Agreement, and shall fully indemnify and save harmless the Owner from all costs and damage which it may suffer by reason or failure to do so, and shall fully reimburse and repay it all outlay and expenses which it may incur in making good any default, and reasonable counsel fees incurred in the prosecution of or defense of any action arising out of or in connection with any such default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that the Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Work to be performed thereunder, or payment thereunder before the time required therein, or waiver of any provision thereof, or assignment, subletting or transfer thereof or any part thereof, shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, addition to the terms of the Contract Documents or any such payment, waiver, assignment, subcontract or transfer.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Whenever Contractor shall be declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Owner shall have the right, at its option, to require the Surety to promptly proceed to remedy the default within 30 days of notice by proceeding or procuring others to proceed with completing the Agreement with its terms and conditions including the correction of any defective work and the provision of safety measures required as the result of such default; and all reserves, deferred payments, and other funds provided by the Agreement to be paid to Contractor shall be paid to Surety at the same times and under the same conditions as by the terms of that Agreement such fund would have been paid to Contractor had the Agreement been performed by Contractor; and Surety shall be entitled to such funds in preference to any assignee

of Principal of any adverse claimant. Notwithstanding the above, the Owner shall have the right, with the approval of the Surety which shall not be unreasonably withheld, to take over and assume completion of the Agreement and be promptly paid in cash by the Surety for the cost of such completion less the balance of the Contract price.

IN WITNESS WHEREOF, all above parties bounded together have executed this instrument this _____ day of _____, 2012, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By: _____ (Seal)
Name: _____
Title: _____

Attest

SURETY

By: _____ (Seal)

Attest

APPROVED AS TO FORM: _____, 2012

City of Norfolk, OWNER

By: _____
Deputy City Attorney

NOTE: Date of Bond shall not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the Bond.

IMPORTANT: The Surety named on this Bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent shall be accompanied by a certified copy of the authority to act for the Surety at the time of signing of this Bond.

End of Page

PAYMENT BOND

Bond No. _____

Amount: **\$500,000.00**

KNOW ALL PERSONS BY THESE PRESENTS, that _____, hereinafter called the Contractor and _____ a corporation duly organized and existing under and by virtue of the laws of the State _____, hereinafter called the Surety, and authorized to transact business within the Commonwealth of Virginia as the Surety, are held and firmly bound unto the City of Norfolk as Owner, in the sum of **FIVE HUNDRED THOUSAND DOLLARS and ZERO CENTS (\$500,000.00)**, lawful money of the United States of America, for payment of which, well and truly be made to the Owner, the Contractor and the Surety bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the Contractor has executed and entered into a certain Agreement, hereto attached, with the Owner dated _____, 2012, for

SMALL PROJECTS – SITE & ROADWAY IMPROVEMENTS – INDEFINITE QUANTITY CONTRACT

NOW THEREFORE, if the Contractor shall promptly make payments to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in the Agreement, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment, and tools consumed, used or rented in connection with the construction of the Work, and all insurance premiums on the Work, and for all labor performed in the Work, whether by Subcontractor or otherwise, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Work to be performed thereunder, shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, all above parties bounded together have executed this instrument this ____ day of _____, 2012, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

(_____)

By: _____ (Seal)

Name: _____

Title: _____

Attest

SURETY

By: _____(Seal)

Attest

APPROVED AS TO FORM: _____, 2012

City of Norfolk, OWNER

By: _____
Deputy City Attorney

NOTE: Date of Bond shall not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the Bond.

IMPORTANT: The Surety named on this Bond shall be one who is licensed to conduct business in the Commonwealth of Virginia, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent shall be accompanied by a certified copy of the authority to act for the Surety at the time of signing of this Bond.

End of Page

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

General Decision Number: VA120013 01/06/2012 VA13

Superseded General Decision Number: VA20100105

State: Virginia

Construction Type: Highway

Counties: Chesapeake*, Isle of Wight, Norfolk*, Portsmouth*,
Suffolk* and Virginia Beach* Counties in Virginia.

* INDEPENDENT CITIES

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building
structures in rest area projects & railroad construction;
bascul, suspension & spandrel arch bridges designed for
commercial navigation, bridges involving marine construction;
and other major bridges).

Modification Number	Publication Date
0	01/06/2012

* SUVA2010-003 02/01/2011

Rates

Fringes

CARPENTER (STRUCTURE).....\$ 16.02

CEMENT MASON/CONCRETE FINISHER...\$ 17.82

ELECTRICIAN.....\$ 26.73

FORM SETTER.....\$ 14.00

IRONWORKER, REINFORCING.....\$ 20.00

LABORER

Asphalt Raker.....\$ 11.00

Construction Laborer I

(Skilled Laborer).....\$ 15.12

Construction Worker II

(Laborer).....\$ 11.52

Fence Erector.....\$ 15.18

Flagger.....\$ 9.00

Guardrail Erector.....\$ 14.13

Landscape Worker.....\$ 13.20

Pipe Layer.....\$ 13.00

Power Tool Operator.....\$ 16.25

PAINTER.....\$ 11.50

PILEDRIVERMAN.....\$ 13.25

PLUMBER.....\$ 16.00

POWER EQUIPMENT OPERATOR:

Asphalt Distributor.....	\$ 14.00
Asphalt Paver.....	\$ 20.98
Backhoe.....	\$ 16.71
Bulldozer (Utility).....	\$ 11.50
Bulldozer.....	\$ 17.50
Concrete Finish Machine.....	\$ 15.00
Concrete Paving Machine.....	\$ 14.00
Crane, Derrick, Dragline (1 cm & under).....	\$ 25.51
Crane, Derrick, Dragline (over 1 cm).....	\$ 25.51
Excavator (Gradall).....	\$ 17.54
Front End Loader (2 cm & under).....	\$ 15.68
Front End Loader (over 2 cm).....	\$ 18.40
Hydro Seeder.....	\$ 16.00
Mechanic.....	\$ 16.00
Motor Grader (Fine Grade)...	\$ 16.72
Motor Grader (Rough Grade)...	\$ 18.40
Oiler, Greaser.....	\$ 14.00
Pavement Marking Operator...	\$ 11.00
Pavement Planing.....	\$ 14.75
Pile Driver.....	\$ 13.25
Roller (Finish).....	\$ 15.19
Roller (Rough).....	\$ 13.94

Scraper Pan.....	\$ 14.00
Slurry Seal Paver Machine....	\$ 18.50
Stone-Spreader.....	\$ 15.80
Tractor Operator (Crawlers)....	\$ 14.21
Trenching Machine.....	\$ 10.00
Truck Operator (Utility)....	\$ 12.35
Vacuum Machine.....	\$ 15.05
SHEET METAL WORKER.....	\$ 19.20

TRUCK DRIVER

Fuel & Lubricant Service

Truck Driver.....	\$ 12.00
Truck Driver (Multi-Rear	
Axle).....	\$ 14.84
Truck Driver (Single Rear	
Axle).....	\$ 14.18
Truck Driver (Tandem Rear	
Axle).....	\$ 14.31
Truck Driver, Heavy Duty	
(7 c.y. & under).....	\$ 16.25
Truck Driver, Heavy Duty	
(over 7 c.y.).....	\$ 13.73

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable ,

i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

END OF GENERAL DECISION.

AIA[®] Document A201[™] – 2007

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Small Projects - Site & Roadway Improvements – Indefinite Quantity Contract

THE CITY OF NORFOLK, a municipal corporation of the Commonwealth of Virginia,
hereinafter called the "City" or the OWNER:

(Name, legal status and address)

Department of Public Works

810 Union Street, Room 700

Norfolk, Virginia 23510

This document has important
legal consequences.

Consultation with an attorney
is encouraged with respect to
its completion or modification.

THE ARCHITECT:

(Name, legal status and address)

TABLE OF ARTICLES

- | | |
|----|--|
| 1 | GENERAL PROVISIONS |
| 2 | OWNER |
| 3 | CONTRACTOR |
| 4 | ARCHITECT |
| 5 | SUBCONTRACTORS |
| 6 | CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS |
| 7 | CHANGES IN THE WORK |
| 8 | TIME |
| 9 | PAYMENTS AND COMPLETION |
| 10 | PROTECTION OF PERSONS AND PROPERTY |
| 11 | INSURANCE AND BONDS |
| 12 | UNCOVERING AND CORRECTION OF WORK |
| 13 | MISCELLANEOUS PROVISIONS |
| 14 | TERMINATION OR SUSPENSION OF THE CONTRACT |
| 15 | CLAIMS AND DISPUTES |

INDEX

(Topics and numbers in bold are section headings.)

Acceptance of Nonconforming Work

9.6.6, 9.9.3, **12.3**

Acceptance of Work

9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, **12.3**

Access to Work

3.16, 6.2.1, **12.1**

Accident Prevention

10

Acts and Omissions

3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 10.2.8, 13.4.2, 13.7, 14.1, 15.2

Addenda

1.1.1, 3.11.1

Additional Costs, Claims for

3.7.4, 3.7.5, 6.1.1, 7.3.7.5, 10.3, 15.1.4

Additional Inspections and Testing

9.4.2, 9.8.3, 12.2.1, **13.5**

Additional Insured

11.1.4

Additional Time, Claims for

3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, **15.1.5**

Administration of the Contract

3.1.3, **4.2**, 9.4, 9.5

Advertisement or Invitation to Bid

1.1.1

Aesthetic Effect

4.2.13

Allowances

3.8, 7.3.8

All-risk Insurance

11.3.1, 11.3.1.1

Applications for Payment

4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5.1, 9.6.3, 9.7, 9.10, 11.1.3

Approvals

2.1.1, 2.2.2, 2.4, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10, 4.2.7, 9.3.2, 13.5.1

Arbitration

8.3.1, 11.3.10, 13.1.1, 15.3.2, **15.4**

ARCHITECT

4

Architect, Definition of

4.1.1

Architect, Extent of Authority

2.4.1, 3.12.7, 4.1, 4.2, 5.2, 6.3, 7.1.2, 7.3.7, 7.4, 9.2, 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, 13.5.1, 13.5.2, 14.2.2, 14.2.4, 15.1.3, 15.2.1

Architect, Limitations of Authority and Responsibility

2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, 9.4.2, 9.5.3, 9.6.4, 15.1.3, 15.2

Architect's Additional Services and Expenses

2.4.1, 11.3.1.1, 12.2.1, 13.5.2, 13.5.3, 14.2.4

Architect's Administration of the Contract

3.1.3, 4.2, 3.7.4, 15.2, 9.4.1, 9.5

Architect's Approvals

2.4.1, 3.1.3, 3.5, 3.10.2, 4.2.7

Architect's Authority to Reject Work

3.5, 4.2.6, 12.1.2, 12.2.1

Architect's Copyright

1.1.7, 1.5

Architect's Decisions

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, 7.3.7, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.4, 9.9.1, 13.5.2, 15.2, 15.3

Architect's Inspections

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 13.5

Architect's Instructions

3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.5.2

Architect's Interpretations

4.2.11, 4.2.12

Architect's Project Representative

4.2.10

Architect's Relationship with Contractor

1.1.2, 1.5, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.2, 4.1.3, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3.7, 12, 13.4.2, 13.5, 15.2

Architect's Relationship with Subcontractors

1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3.7

Architect's Representations

9.4.2, 9.5.1, 9.10.1

Architect's Site Visits

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.5

Asbestos

10.3.1

Attorneys' Fees

3.18.1, 9.10.2, 10.3.3

Award of Separate Contracts

6.1.1, 6.1.2

Award of Subcontracts and Other Contracts for Portions of the Work

5.2

Basic Definitions

1.1

Bidding Requirements

1.1.1, 5.2.1, 11.4.1

Binding Dispute Resolution

9.7, 11.3.9, 11.3.10, 13.1.1, 15.2.5, 15.2.6.1, 15.3.1, 15.3.2, 15.4.1

Boiler and Machinery Insurance

11.3.2

Bonds, Lien

7.3.7.4, 9.10.2, 9.10.3

Bonds, Performance, and Payment

7.3.7.4, 9.6.7, 9.10.3, 11.3.9, **11.4**

Init.

AIA Document A201™ – 2007. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997 and 2007 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 13:53:17 on 07/19/2012 under Order No.8533614732_1 which expires on 08/04/2012, and is not for resale.

User Notes:

(1749178672)

Building Permit

3.7.1

Capitalization

1.3

Certificate of Substantial Completion

9.8.3, 9.8.4, 9.8.5

Certificates for Payment

4.2.1, 4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4, 15.1.3

Certificates of Inspection, Testing or Approval
13.5.4

Certificates of Insurance

9.10.2, 11.1.3

Change Orders

1.1.1, 2.4.1, 3.4.2, 3.7.4, 3.8.2.3, 3.11.1, 3.12.8, 4.2.8, 5.2.3, 7.1.2, 7.1.3, **7.2**, 7.3.2, 7.3.6, 7.3.9, 7.3.10, 8.3.1, 9.3.1.1, 9.10.3, 10.3.2, 11.3.1.2, 11.3.4, 11.3.9, 12.1.2, 15.1.3

Change Orders, Definition of

7.2.1

CHANGES IN THE WORK

2.2.1, 3.11, 4.2.8, 7, 7.2.1, 7.3.1, 7.4, 7.4.1, 8.3.1, 9.3.1.1, 11.3.9

Claims, Definition of

15.1.1

CLAIMS AND DISPUTES

3.2.4, 6.1.1, 6.3, 7.3.9, 9.3.3, 9.10.4, 10.3.3, **15**, 15.4
Claims and Timely Assertion of Claims
15.4.1

Claims for Additional Cost

3.2.4, 3.7.4, 6.1.1, 7.3.9, 10.3.2, **15.1.4**

Claims for Additional Time

3.2.4, 3.7.4.6.1.1, 8.3.2, 10.3.2, **15.1.5**

Concealed or Unknown Conditions, Claims for
3.7.4

Claims for Damages

3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.1.1, 11.3.5, 11.3.7, 14.1.3, 14.2.4, 15.1.6

Claims Subject to Arbitration

15.3.1, 15.4.1

Cleaning Up

3.15, 6.3

Commencement of the Work, Conditions Relating to
2.2.1, 3.2.2, 3.4.1, 3.7.1, 3.10.1, 3.12.6, 5.2.1, 5.2.3, 6.2.2, 8.1.2, 8.2.2, 8.3.1, 11.1, 11.3.1, 11.3.6, 11.4.1, 15.1.4

Commencement of the Work, Definition of
8.1.2

Communications Facilitating Contract Administration

3.9.1, **4.2.4**

Completion, Conditions Relating to

3.4.1, 3.11, 3.15, 4.2.2, 4.2.9, 8.2, 9.4.2, 9.8, 9.9.1, 9.10, 12.2, 13.7, 14.1.2

COMPLETION, PAYMENTS AND

9

Completion, Substantial

4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2, 13.7

Compliance with Laws

1.6.1, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 4.1.1, 9.6.4, 10.2.2, 11.1, 11.3, 13.1, 13.4, 13.5.1, 13.5.2, 13.6, 14.1.1, 14.2.1.3, 15.2.8, 15.4.2, 15.4.3

Concealed or Unknown Conditions

3.7.4, 4.2.8, 8.3.1, 10.3

Conditions of the Contract

1.1.1, 6.1.1, 6.1.4

Consent, Written

3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3, 11.3.1, 13.2, 13.4.2, 15.4.4.2

Consolidation or Joinder

15.4.4

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

1.1.4, **6**

Construction Change Directive, Definition of
7.3.1

Construction Change Directives

1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1.1, 7.1.2, 7.1.3, **7.3**, 9.3.1.1

Construction Schedules, Contractor's

3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2

Contingent Assignment of Subcontracts

5.4, 14.2.2.2

Continuing Contract Performance

15.1.3

Contract, Definition of

1.1.2

CONTRACT, TERMINATION OR SUSPENSION OF THE

5.4.1.1, 11.3.9, **14**

Contract Administration

3.1.3, 4, 9.4, 9.5

Contract Award and Execution, Conditions Relating to

3.7.1, 3.10, 5.2, 6.1, 11.1.3, 11.3.6, 11.4.1

Contract Documents, Copies Furnished and Use of
1.5.2, 2.2.5, 5.3

Contract Documents, Definition of

1.1.1

Contract Sum

3.7.4, 3.8, 5.2.3, 7.2, 7.3, 7.4, **9.1**, 9.4.2, 9.5.1.4, 9.6.7, 9.7, 10.3.2, 11.3.1, 14.2.4, 14.3.2, 15.1.4, 15.2.5

Contract Sum, Definition of
9.1

Contract Time

3.7.4, 3.7.5, 3.10.2, 5.2.3, 7.2.1.3, 7.3.1, 7.3.5, 7.4, 8.1.1, 8.2.1, 8.3.1, 9.5.1, 9.7, 10.3.2, 12.1.1, 14.3.2, 15.1.5.1, 15.2.5

Contract Time, Definition of

8.1.1

Init.

CONTRACTOR

3

Contractor, Definition of

3.1, 6.1.2

Contractor's Construction Schedules

3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2

Contractor's Employees

3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3, 11.1.1, 11.3.7, 14.1, ~~14.2.1~~ 14.2.1.1,

Contractor's Liability Insurance

11.1

Contractor's Relationship with Separate Contractors and Owner's Forces

3.12.5, 3.14.2, 4.2.4, 6, 11.3.7, 12.1.2, 12.2.4

Contractor's Relationship with Subcontractors

1.2.2, 3.3.2, 3.18.1, 3.18.2, 5, 9.6.2, 9.6.7, 9.10.2, 11.3.1.2, 11.3.7, 11.3.8

Contractor's Relationship with the Architect

1.1.2, 1.5, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.3, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3.7, 12, 13.5, 15.1.2, 15.2.1

Contractor's Representations

3.2.1, 3.2.2, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.8.2

Contractor's Responsibility for Those Performing the Work

3.3.2, 3.18, 5.3.1, 6.1.3, 6.2, 9.5.1, 10.2.8

Contractor's Review of Contract Documents

3.2

Contractor's Right to Stop the Work

9.7

Contractor's Right to Terminate the Contract

14.1, 15.1.6

Contractor's Submittals

3.10, 3.11, 3.12.4, 4.2.7, 5.2.1, 5.2.3, 9.2, 9.3, 9.8.2, 9.8.3, 9.9.1, 9.10.2, 9.10.3, 11.1.3, 11.4.2

Contractor's Superintendent

3.9, 10.2.6

Contractor's Supervision and Construction Procedures

1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.5, 7.3.7, 8.2, 10, 12, 14, 15.1.3

Contractual Liability Insurance

11.1.1.8, 11.2

Coordination and Correlation

1.2, 3.2.1, 3.3.1, 3.10, 3.12.6, 6.1.3, 6.2.1

Copies Furnished of Drawings and Specifications

1.5, 2.2.5, 3.11

Copyrights

1.5, 3.17

Correction of Work

2.3, 2.4, 3.7.3, 9.4.2, 9.8.2, 9.8.3, 9.9.1, 12.1.2, 12.2

Correlation and Intent of the Contract Documents

1.2

Cost, Definition of

7.3.7

Costs

2.4.1, 3.2.4, 3.7.3, 3.8.2, 3.15.2, 5.4.2, 6.1.1, 6.2.3, 7.3.3.3, 7.3.7, 7.3.8, 7.3.9, 9.10.2, 10.3.2, 10.3.6, 11.3, 12.1.2, 12.2.1, 12.2.4, 13.5, 14

Cutting and Patching

3.14, 6.2.5

Damage to Construction of Owner or Separate Contractors

3.14.2, 6.2.4, 10.2.1.2, 10.2.5, 10.4, 11.1.1, 11.3, 12.2.4

Damage to the Work

3.14.2, 9.9.1, 10.2.1.2, 10.2.5, 10.4.1, 11.3.1, 12.2.4

Damages, Claims for

3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.1.1, 11.3.5, 11.3.7, 14.1.3, 14.2.4, 15.1.6

Damages for Delay

6.1.1, 8.3.3, 9.5.1.6, 9.7, 10.3.2

Date of Commencement of the Work, Definition of

8.1.2

Date of Substantial Completion, Definition of

8.1.3

Day, Definition of

8.1.4

Decisions of the Architect

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 15.2, 6.3, 7.3.7, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4, 9.5.1, 9.8.4, 9.9.1, 13.5.2, 14.2.2, 14.2.4, 15.1, 15.2

Decisions to Withhold Certification

9.4.1, 9.5, 9.7, 14.1.1.3

Defective or Nonconforming Work, Acceptance, Rejection and Correction of

2.3.1, 2.4.1, 3.5, 4.2.6, 6.2.5, 9.5.1, 9.5.2, 9.6.6, 9.8.2, 9.9.3, 9.10.4, 12.2.1

Definitions

1.1, 2.1.1, 3.1.1, 3.5, 3.12.1, 3.12.2, 3.12.3, 4.1.1, 15.1.1, 5.1, 6.1.2, 7.2.1, 7.3.1, 8.1, 9.1, 9.8.1

Delays and Extensions of Time

3.2, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, 8.3, 9.5.1, 9.7, 10.3.2, 10.4.1, 14.3.2, 15.1.5, 15.2.5

Disputes

6.3, 7.3.9, 15.1, 15.2

Documents and Samples at the Site

3.11

Drawings, Definition of

1.1.5

Drawings and Specifications, Use and Ownership of

3.11

Effective Date of Insurance

8.2.2, 11.1.2

Emergencies

10.4, 14.1.1.2, 15.1.4

Employees, Contractor's

3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3.3, 11.1.1, 11.3.7, 14.1, 14.2.1.1

Init.

AIA Document A201™ – 2007. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997 and 2007 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 13:53:17 on 07/19/2012 under Order No.8533614732_1 which expires on 08/04/2012, and is not for resale.

User Notes:

(1749178672)

Equipment, Labor, Materials or
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13.1, 3.15.1,
4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2, 9.3.3, 9.5.1.3,
9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2
Execution and Progress of the Work
1.1.3, 1.2.1, 1.2.2, 2.2.3, 2.2.5, 3.1, 3.3.1, 3.4.1, 3.5,
3.7.1, 3.10.1, 3.12, 3.14, 4.2, 6.2.2, 7.1.3, 7.3.5, 8.2,
9.5.1, 9.9.1, 10.2, 10.3, 12.2, 14.2, 14.3.1, 15.1.3
Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2,
10.4.1, 14.3, 15.1.5, 15.2.5
Failure of Payment
9.5.1.3, 9.7, 9.10.2, 13.6, 14.1.1.3, 14.2.1.2
Faulty Work
(See Defective or Nonconforming Work)
Final Completion and Final Payment
4.2.1, 4.2.9, 9.8.2, 9.10, 11.1.2, 11.1.3, 11.3.1, 11.3.5,
12.3.1, 14.2.4, 14.4.3
Financial Arrangements, Owner's
2.2.1, 13.2.2, 14.1.1.4
Fire and Extended Coverage Insurance
11.3.1.1
GENERAL PROVISIONS
1
Governing Law
13.1
Guarantees (See Warranty)
Hazardous Materials
10.2.4, 10.3
Identification of Subcontractors and Suppliers
5.2.1
Indemnification
3.17, 3.18, 9.10.2, 10.3.3, 10.3.5, 10.3.6, 11.3.1.2,
11.3.7
Information and Services Required of the Owner
2.1.2, 2.2, 3.2.2, 3.12.4, 3.12.10, 6.1.3, 6.1.4, 6.2.5,
9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 11.4, 13.5.1,
13.5.2, 14.1.1.4, 14.1.4, 15.1.3
Initial Decision
15.2
Initial Decision Maker, Definition of
1.1.8
Initial Decision Maker, Decisions
14.2.2, 14.2.4, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5
Initial Decision Maker, Extent of Authority
14.2.2, 14.2.4, 15.1.3, 15.2.1, 15.2.2, 15.2.3, 15.2.4,
15.2.5
Injury or Damage to Person or Property
10.2.8, 10.4.1
Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,
9.9.2, 9.10.1, 12.2.1, 13.5
Instructions to Bidders
1.1.1
Instructions to the Contractor
3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.5.2

Instruments of Service, Definition of
1.1.7
Insurance
3.18.1, 6.1.1, 7.3.7, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 11
Insurance, Boiler and Machinery
11.3.2
Insurance, Contractor's Liability
11.1
Insurance, Effective Date of
8.2.2, 11.1.2
Insurance, Loss of Use
11.3.3
Insurance, Owner's Liability
11.2
Insurance, Property
10.2.5, 11.3
Insurance, Stored Materials
9.3.2
INSURANCE AND BONDS
11
Insurance Companies, Consent to Partial Occupancy
9.9.1
Intent of the Contract Documents
1.2.1, 4.2.7, 4.2.12, 4.2.13, 7.4
Interest
13.6
Interpretation
1.2.3, 1.4, 4.1.1, 5.1, 6.1.2, 15.1.1
Interpretations, Written
4.2.11, 4.2.12, 15.1.4
Judgment on Final Award
15.4.2
Labor and Materials, Equipment
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,
4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2, 9.3.3, 9.5.1.3,
9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2
Labor Disputes
8.3.1
Laws and Regulations
1.5, 3.2.3, 3.6, 3.7, 3.12.10, 3.13.1, 4.1.1, 9.6.4, 9.9.1,
10.2.2, 11.1.1, 11.3, 13.1.1, 13.4, 13.5.1, 13.5.2,
13.6.1, 14, 15.2.8, 15.4
Liens
2.1.2, 9.3.3, 9.10.2, 9.10.4, 15.2.8
Limitations, Statutes of
12.2.5, 13.7, 15.4.1.1
Limitations of Liability
2.3.1, 3.2.2, 3.5, 3.12.10, 3.17, 3.18.1, 4.2.6, 4.2.7,
4.2.12, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 10.2.5, 10.3.3,
11.1.2, 11.2, 11.3.7, 12.2.5, 13.4.2
Limitations of Time
2.1.2, 2.2, 2.4, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7,
5.2, 5.3.1, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3,
9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 11.1.3, 11.3.1.5,
11.3.6, 11.3.10, 12.2, 13.5, 13.7, 14, 15
Loss of Use Insurance
11.3.3

Material Suppliers
1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.6, 9.10.5

Materials, Hazardous
10.2.4, **10.3**

Materials, Labor, Equipment and
1.1.3, 1.1.6, 1.5.1, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12,
3.13.1, 3.15.1, 4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.7, 9.3.2,
9.3.3, 9.5.1.3, 9.10.2, 10.2.1.2, 10.2.4, 14.2.1.1,
14.2.1.2

Means, Methods, Techniques, Sequences and
Procedures of Construction
3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2

Mechanic's Lien
2.1.2, 15.2.8

Mediation
8.3.1, 10.3.5, 10.3.6, 15.2.1, 15.2.5, 15.2.6, **15.3**,
15.4.1

Minor Changes in the Work
1.1.1, 3.12.8, 4.2.8, 7.1, **7.4**

MISCELLANEOUS PROVISIONS
13

Modifications, Definition of
1.1.1
Modifications to the Contract
1.1.1, 1.1.2, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7,
10.3.2, 11.3.1

Mutual Responsibility
6.2

Nonconforming Work, Acceptance of
9.6.6, 9.9.3, **12.3**

Nonconforming Work, Rejection and Correction of
2.3.1, 2.4.1, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3,
9.10.4, 12.2.1

Notice
2.2.1, 2.3.1, 2.4.1, 3.2.4, 3.3.1, 3.7.2, 3.12.9, 5.2.1,
9.7, 9.10, 10.2.2, 11.1.3, 12.2.2.1, 13.3, 13.5.1,
13.5.2, 14.1, 14.2, 15.2.8, 15.4.1

Notice, Written
2.3.1, 2.4.1, 3.3.1, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 9.7,
9.10, 10.2.2, 10.3, 11.1.3, 11.3.6, 12.2.2.1, **13.3**, 14,
15.2.8, 15.4.1

Notice of Claims
3.7.4, 10.2.8, **15.1.2.8**, 15.4

Notice of Testing and Inspections
13.5.1, 13.5.2

Observations, Contractor's
3.2, 3.7.4

Occupancy
2.2.2, 9.6.6, 9.8, 11.3.1.5

Orders, Written
1.1.1, 2.3, 3.9.2, 7, 8.2.2, 11.3.9, 12.1, 12.2.2.1,
13.5.2, 14.3.1

OWNER
2

Owner, Definition of
2.1.1

Owner, Information and Services Required of the
2.1.2, **2.2**, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2,
9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 11.3, 13.5.1,
13.5.2, 14.1.1.4, 14.1.4, 15.1.3

Owner's Authority
1.5, 2.1.1, 2.3.1, 2.4.1, 3.4.2, 3.8.1, 3.12.10, 3.14.2,
4.1.2, 4.1.3, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3,
7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.1, 9.3.2, 9.5.1, 9.6.4,
9.9.1, 9.10.2, 10.3.2, 11.1.3, 11.3.3, 11.3.10, 12.2.2,
12.3.1, 13.2.2, 14.3, 14.4, 15.2.7

Owner's Financial Capability
2.2.1, 13.2.2, 14.1.1.4

Owner's Liability Insurance
11.2

Owner's Relationship with Subcontractors
1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2

Owner's Right to Carry Out the Work
2.4, 14.2.2

Owner's Right to Clean Up
6.3

Owner's Right to Perform Construction and to Award Separate Contracts
6.1

Owner's Right to Stop the Work
2.3

Owner's Right to Suspend the Work
14.3

Owner's Right to Terminate the Contract
14.2

Ownership and Use of Drawings, Specifications and Other Instruments of Service
1.1.1, 1.1.6, 1.1.7, **1.5**, 2.2.5, 3.2.2, 3.11.1, 3.17,
4.2.12, 5.3.1

Partial Occupancy or Use
9.6.6, **9.9**, 11.3.1.5

Patching, Cutting and
3.14, 6.2.5

Patents
3.17

Payment, Applications for
4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1,
14.2.3, 14.2.4, 14.4.3

Payment, Certificates for
4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1,
9.10.3, 13.7, 14.1.1.3, 14.2.4

Payment, Failure of
9.5.1.3, **9.7**, 9.10.2, 13.6, 14.1.1.3, 14.2.1.2

Payment, Final
4.2.1, 4.2.9, 9.8.2, 9.10, 11.1.2, 11.1.3, 11.4.1, 12.3.1,
13.7, 14.2.4, 14.4.3

Payment Bond, Performance Bond and
7.3.7.4, 9.6.7, 9.10.3, **11.4**

Payments, Progress
9.3, **9.6**, 9.8.5, 9.10.3, 13.6, 14.2.3, 15.1.3

PAYMENTS AND COMPLETION
9

Payments to Subcontractors
 5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2
 PCB
 10.3.1
Performance Bond and Payment Bond
 7.3.7.4, 9.6.7, 9.10.3, 11.4
Permits, Fees, Notices and Compliance with Laws
 2.2.2, 3.7, 3.13, 7.3.7.4, 10.2.2
PERSONS AND PROPERTY, PROTECTION OF
10
 Polychlorinated Biphenyl
 10.3.1
Product Data, Definition of
3.12.2
Product Data and Samples, Shop Drawings
 3.11, 3.12, 4.2.7
Progress and Completion
 4.2.2, 8.2, 9.8, 9.9.1, 14.1.4, 15.1.3
Progress Payments
 9.3, 9.6, 9.8.5, 9.10.3, 13.6, 14.2.3, 15.1.3
Project, Definition of
1.1.4
 Project Representatives
 4.2.10
Property Insurance
 10.2.5, 11.3
PROTECTION OF PERSONS AND PROPERTY
10
 Regulations and Laws
 1.5, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 4.1.1, 9.6.4, 9.9.1,
 10.2.2, 11.1, 11.4, 13.1, 13.4, 13.5.1, 13.5.2, 13.6, 14,
 15.2.8, 15.4
 Rejection of Work
 3.5, 4.2.6, 12.2.1
 Releases and Waivers of Liens
 9.10.2
 Representations
 3.2.1, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.4.2, 9.5.1,
 9.8.2, 9.10.1
 Representatives
 2.1.1, 3.1.1, 3.9, 4.1.1, 4.2.1, 4.2.2, 4.2.10, 5.1.1,
 5.1.2, 13.2.1
 Responsibility for Those Performing the Work
 3.3.2, 3.18, 4.2.3, 5.3.1, 6.1.3, 6.2, 6.3, 9.5.1, 10
 Retainage
 9.3.1, 9.6.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3
Review of Contract Documents and Field
Conditions by Contractor
 3.2, 3.12.7, 6.1.3
 Review of Contractor's Submittals by Owner and
 Architect
 3.10.1, 3.10.2, 3.11, 3.12, 4.2, 5.2, 6.1.3, 9.2, 9.8.2
 Review of Shop Drawings, Product Data and
 Samples by Contractor
 3.12

Rights and Remedies
 1.1.2, 2.3, 2.4, 3.5, 3.7.4, 3.15.2, 4.2.6, 5.3, 5.4, 6.1,
 6.3, 7.3.1, 8.3, 9.5.1, 9.7, 10.2.5, 10.3, 12.2.2, 12.2.4,
 13.4, 14, 15.4
Royalties, Patents and Copyrights
3.17
 Rules and Notices for Arbitration
 15.4.1
Safety of Persons and Property
10.2, 10.4
Safety Precautions and Programs
 3.3.1, 4.2.2, 4.2.7, 5.3.1, 10.1, 10.2, 10.4
Samples, Definition of
3.12.3
Samples, Shop Drawings, Product Data and
 3.11, 3.12, 4.2.7
Samples at the Site, Documents and
3.11
Schedule of Values
9.2, 9.3.1
 Schedules, Construction
 3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.5.2
 Separate Contracts and Contractors
 1.1.4, 3.12.5, 3.14.2, 4.2.4, 4.2.7, 6, 8.3.1, 12.1.2
Shop Drawings, Definition of
3.12.1
Shop Drawings, Product Data and Samples
 3.11, 3.12, 4.2.7
Site, Use of
3.13, 6.1.1, 6.2.1
 Site Inspections
 3.2.2, 3.3.3, 3.7.1, 3.7.4, 4.2, 9.4.2, 9.10.1, 13.5
 Site Visits, Architect's
 3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.5
 Special Inspections and Testing
 4.2.6, 12.2.1, 13.5
Specifications, Definition of
1.1.6
Specifications
 1.1.1, 1.1.6, 1.2.2, 1.5, 3.11, 3.12.10, 3.17, 4.2.14
 Statute of Limitations
 13.7, 15.4.1.1
 Stopping the Work
 2.3, 9.7, 10.3, 14.1
 Stored Materials
 6.2.1, 9.3.2, 10.2.1.2, 10.2.4
Subcontractor, Definition of
5.1.1
SUBCONTRACTORS
5
 Subcontractors, Work by
 1.2.2, 3.3.2, 3.12.1, 4.2.3, 5.2.3, 5.3, 5.4, 9.3.1.2,
 9.6.7
Subcontractual Relations
5.3, 5.4, 9.3.1.2, 9.6, 9.10, 10.2.1, 14.1, 14.2.1

Submittals
 3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 7.3.7, 9.2, 9.3,
 9.8, 9.9.1, 9.10.2, 9.10.3, 11.1.3
 Submittal Schedule
 3.10.2, 3.12.5, 4.2.7
Subrogation, Waivers of
 6.1.1, 11.3.7
Substantial Completion
 4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3,
 12.2, 13.7
Substantial Completion, Definition of
 9.8.1
 Substitution of Subcontractors
 5.2.3, 5.2.4
 Substitution of Architect
 4.1.3
 Substitutions of Materials
 3.4.2, 3.5, 7.3.8
Sub-subcontractor, Definition of
 5.1.2
 Subsurface Conditions
 3.7.4
Successors and Assigns
 13.2
Superintendent
 3.9, 10.2.6
Supervision and Construction Procedures
 1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4,
 7.1.3, 7.3.7, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.3
 Surety
 5.4.1.2, 9.8.5, 9.10.2, 9.10.3, 14.2.2, 15.2.7
 Surety, Consent of
 9.10.2, 9.10.3
 Surveys
 2.2.3
Suspension by the Owner for Convenience
 14.3
 Suspension of the Work
 5.4.2, 14.3
 Suspension or Termination of the Contract
 5.4.1.1, 14
Taxes
 3.6, 3.8.2.1, 7.3.7.4
Termination by the Contractor
 14.1, 15.1.6
Termination by the Owner for Cause
 5.4.1.1, 14.2, 15.1.6
Termination by the Owner for Convenience
 14.4
 Termination of the Architect
 4.1.3
 Termination of the Contractor
 14.2.2
TERMINATION OR SUSPENSION OF THE CONTRACT
 14

Tests and Inspections
 3.1.3, 3.3.3, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3, 9.9.2,
 9.10.1, 10.3.2, 11.4.1.1, 12.2.1, 13.5
TIME
 8
Time, Delays and Extensions of
 3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, 8.3, 9.5.1, 9.7,
 10.3.2, 10.4.1, 14.3.2, 15.1.5, 15.2.5
 Time Limits
 2.1.2, 2.2, 2.4, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2,
 5.2, 5.3, 5.4, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3,
 9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 11.1.3, 12.2, 13.5,
 13.7, 14, 15.1.2, 15.4
Time Limits on Claims
 3.7.4, 10.2.8, 13.7, 15.1.2
 Title to Work
 9.3.2, 9.3.3
Transmission of Data in Digital Form
 1.6
UNCOVERING AND CORRECTION OF WORK
 12
Uncovering of Work
 12.1
 Unforeseen Conditions, Concealed or Unknown
 3.7.4, 8.3.1, 10.3
 Unit Prices
 7.3.3.2, 7.3.4
 Use of Documents
 1.1.1, 1.5, 2.2.5, 3.12.6, 5.3
Use of Site
 3.13, 6.1.1, 6.2.1
Values, Schedule of
 9.2, 9.3.1
 Waiver of Claims by the Architect
 13.4.2
 Waiver of Claims by the Contractor
 9.10.5, 13.4.2, 15.1.6
 Waiver of Claims by the Owner
 9.9.3, 9.10.3, 9.10.4, 12.2.2.1, 13.4.2, 14.2.4, 15.1.6
 Waiver of Consequential Damages
 14.2.4, 15.1.6
 Waiver of Liens
 9.10.2, 9.10.4
Waivers of Subrogation
 6.1.1, 11.3.7
Warranty
 3.5, 4.2.9, 9.3.3, 9.8.4, 9.9.1, 9.10.4, 12.2.2, 13.7-
 13.7.1
 Weather Delays
 15.1.5.2
Work, Definition of
 1.1.3
 Written Consent
 1.5.2, 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.8.5,
 9.9.1, 9.10.2, 9.10.3, 11.4.1, 13.2, 13.4.2, 15.4.4.2

Written Interpretations

4.2.11, 4.2.12

Written Notice

2.3, 2.4, 3.3.1, 3.9, 3.12.9, 3.12.10, 5.2.1, 8.2.2, 9.7,
9.10, 10.2.2, 10.3, 11.1.3, 12.2.2, 12.2.4, **13.3**, 14,
15.4.1

Written Orders

1.1.1, 2.3, 3.9, 7, 8.2.2, 12.1, 12.2, 13.5.2, 14.3.1,
15.1.2

Init.

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

§ 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

§ 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called for at no additional cost to the Owner.

§ 1.2.1.1 Should any conflict be found in the Contract Documents, the Engineer/Architect shall interpret or construe the Contract Documents so as to secure the most substantial and complete performance of the Work. In other words, the better quality or great quantity of work shall be provided in accordance with the Engineer's/Architect's interpretation. The Engineer's/Architect's decision in this matter shall be final.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.2.4 Wherever in the Contract Documents the words "as approved," "as directed," "as required," "acceptable," "satisfactory" and words of like import are used with reference to the Work or its performance, and without further qualification, it shall mean as approved, as directed, as required by the Engineer/Architect and acceptable, satisfactory, etc. to the Engineer/Architect.

§ 1.2.5 The general character of the detailed work is shown on the Drawings, but minor modifications may be made on the shop drawings or mock-ups. Any details shall be worked out in relation to their location and their connection to other parts of the Work. Where on any drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out also apply to all other like portions of the Work. Where details or conditions are indicated but started only, such details or conditions shall be continued throughout the courses or parts in which they occur and shall also apply to all other similar parts in the Work unless otherwise indicated or specifically noted.

§ 1.3 CAPITALIZATION

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 INTERPRETATION

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 1.5.1 The Drawings, Specifications and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants are Instruments of Service through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect or the Architect's consultants, and unless otherwise indicated the Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and them, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, in addition to the copyrights. All copies of Instruments of Service, except the Contractor's record set, shall be returned or suitably accounted for to the Architect, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. As such, the City is hereby declared sole-owner of these documents in regards to this Project and will abide by the limitations described in Subparagraph 1.5.1. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service, are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants. Submittal or distribution to meet official regulatory requirements or

Init.

for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' copyrights or reserved rights.

~~§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.~~

§ 1.5.2. Intentionally Omitted.

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 GENERAL

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

~~§ 2.2.1 Prior to commencement of the Work, the Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.~~

§ 2.2.1. Intentionally Omitted.

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Unless otherwise specified, the following applies:

Water line taps, construction of pits for water taps and meter, and restoration of the area to its original condition shall be performed by the Contractor at its expense. Only new water meters shall be installed by City forces at the expense of project sponsor (i.e. the City or private developer). All the aforementioned shall be coordinated by the Contractor.

Sanitary taps and cleanouts shall be done by the Contractor or its Subcontractor at the Contractor's expense. HRSD tap fees will be paid by the Owner.

For gas and electrical work and associated meter installations, Contractor shall be responsible for complete coordination of work with utilities, including provision of all necessary labor, equipment, and materials as required in the Contract Documents as well as payment of all resulting costs to aforesaid Work.

For telephone and cables, Contractor shall be responsible for coordination of telephone trunk line and cable installation with telephone/television company to the "point of penetration" to the facility, including provision of all necessary labor, equipment, and materials as required in the Contract Documents as well as payment of resulting costs to all aforesaid work.

§ 2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner, subject to Subparagraph 3.7.4, but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.2.3.1 The Contractor shall be responsible for protecting pins, stakes, marks, hubs, and control points. Replacement of damaged or destroyed pins, stakes, marks, hubs or control points shall be conducted under the supervision of a surveyor licensed in the Commonwealth of Virginia, if required by the City, and at the Contractor's expense. The Contractor shall coordinate with the Surveys Division of the Department of Public Works (664-4645) prior to resetting of points and shall provide certified documentation to include the reference/recovery sheet with swing ties for new benchmarks.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.(1) CD containing the Drawings and Specifications, in PDF format, free of charge.

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. ~~Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect.~~ ~~failure.~~ If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. Any failure by the Contractor to acquaint himself with such information shall not relieve him from the responsibility for successfully performing the Work.

.1 Dimensions of Work shall not be determined by scale or rule, but figured dimensions shall be used at all times.

.2 The Contractor shall verify all dimensions by measurement at the jobsite, and shall take any and all other measurements necessary to verify the drawings and to properly layout the Work.

.3 The study of the Contract Documents by the Contractor shall be made sufficiently in advance of the actual layout of the Work so as to allow the Contract Documents to be interpreted or modified by the Engineer/Architect.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect ~~issues~~ in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. ~~If the Contractor performs those obligations, the Contractor-The Contractor~~ shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, or for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities. Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect..

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite

safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 LABOR AND MATERIALS

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Architect in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

Substituted Materials. Request for approval of any substituted material and equipment for those specified or shown on the drawings shall be made in writing to the Engineer within 30 days after award of the Contract. If this request is not submitted, the Engineer reserves the right to have the Contractor furnish the material and equipment definitely specified or shown on the plans. The Contractor shall show, in writing, the monetary savings, improvement in quality, time savings, and other factors to be gained from the proposed substitute. Approval of substitute materials and equipment will be at the sole discretion of the Engineer.

Or Equal. It is not the intent of these specifications to exclude or omit products or any responsible manufacturer, if said products are equal in every respect to those mentioned herein. Whenever an article, or any class of materials is specified by trade name or by name of any particular patentee, manufacturer or dealer, it shall be taken as intending to mean equal thereto in quality, finish, size, and durability and equally as serviceable for the purpose for which it is or they intended. Request for approval of any "equal" material or product for those specified or shown on the drawings shall be made in writing to the Engineer within 30 days after award of the Contract. If this request is not submitted, the Engineer reserves the right to have the Contractor furnish the material and products definitely specified and shown on the plans. The Contractor shall show, in writing, that the material or product being proposed is equal in every respect to that specified and shall provide all necessary supporting documentation requested by the Engineer. The quality shall be determined by the Engineer, and he alone shall be sole judge as to what materials or services will be accepted as equal. No substitution of materials, methods, or services specified shall be made without written approval from the Engineer.

Materials and Equipment Manufacturer's Recommendation. All materials, equipment or other items specified by trade or manufacturer's name shall be handled, installed, erected or connected in strict conformity with the manufacturer's recommendations and/or specifications.

By making requests for substitutions, the Contractor:

.1 Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;

.2 Represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified;

Init.

.3 Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs and time extensions related to the substitution which may subsequently become apparent; and

.4 Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 WARRANTY

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. The Contractor shall be advised that there is NO permit fee for new construction, additions, etc. for CITY-OWNED BUILDINGS. Before final payment is made on the Project, Contractor shall demonstrate that the necessary inspections, certificates of occupancy, clearance, and/or acceptance from the City, State, Federal, and/or private entities/organizations such as from the City's Building Official, Corps of Engineers, Department of Environmental Quality, etc. have been obtained.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 **Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are ~~disturbed and in no event later than 21 days after first observance of the conditions~~ disturbed, Contractor shall not disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so "except in an emergency as required by Paragraph 10.4. . The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. With respect to unforeseen Work that is paid on a Unit Price Basis, any adjustment in quantity and Contract price will be determined

Init.

by the Engineer/Architect subject to the provisions of Subparagraph 15.1.5.3. Engineer/Architect will review with the Contractor the Engineer's/Architect's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). If either party disputes the Architect's determination or recommendation, that party may proceed as provided in Article 15.

§ 3.7.4.1 Possible Price and Times Adjustments. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Terms if:

- a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner in respect to Contract price and Contract times by the submission of a Bid or becoming bound under a negotiated contract; or
- b. The existence of such condition could reasonably have been discovered or revealed as a result of examination, investigation, exploration, test, or study of the Site and contiguous areas required by the bidding requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
- c. Contractor failed to give written notice within the time and as required by Subparagraph 3.7.4.

§ 3.7.4.2 Subsurface and Physical Conditions. The Contract Documents identify:

- a. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that the Engineer/Architect has used in preparing the Contract Documents;
- b. Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that the Engineer/Architect has used in preparing the Contract Documents.

§ 3.7.4.3 Limited Reliance by Contractor on Technical Data Authorized. Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data", if any, shall be identified in Supplementary General Conditions. Contractor may not rely upon or make any claim against Owner, Engineer/Architect, or any of Engineer's/Architect's consultants with respect to:

- a. The completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, and safety precautions and programs incident thereto; or
- b. Any Contractor interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions, or information.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 ALLOWANCES

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

Init.

- .1 Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 Whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2. The Contractor shall attach with monthly invoices the original copy of sales invoices/receipts for materials or equipment that are covered under allowances.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner ~~with reasonable promptness in~~ sufficient time to avoid delay in the Work.

§ 3.9 SUPERINTENDENT

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

.1 The superintendent shall not be changed except with the consent of the Owner, unless the superintendent ceases to be in the Contractor's employ.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, and prior to mobilization or proceeding with any work on site, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Architect requires additional time to review. Failure of the Architect to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.9.4 The superintendent shall be present on the project site whenever work is being performed, unless otherwise authorized in writing by the Owner. The Contractor shall notify the Owner whenever the superintendent will be absent for four hours or more. This notification shall include the name of the designated substitute. Any substitute shall be familiar with the project and have the same authority of the primary superintendent. Verbal notification is acceptable for periods less than one full workday.

§ 3.9.5 The superintendent shall serve as a day to day point of contact on the contract for the Owner and shall, as a minimum, have the authority to:

- a. Act on behalf of the Contractor,
- b. Direct the work of subcontractors,
- c. Respond to directed changes in the schedule,
- d. Provide detailed updates to and respond to inquiries from the Owner on the progress of the work,
- e. Act upon verbal and written notification of non-conforming work,
- f. Respond to any complaints regarding the conduct or actions of any employee of the Contractor or any subcontractor.

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. At the Pre-Construction Conference, the Contractor shall submit to the Engineer for its timely review a preliminary construction schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

.1 The progress schedule shall be in the form of a bar graph and shall identify each major or critical activity. The progress schedule shall be updated monthly. Five (5) copies of the updated progress schedule shall be submitted with each Application for Payment.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

.1 Reproduction of the Contract Drawings, or any portion thereof, shall not be acceptable.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

The Contractor, within 15 days from the Notice to Proceed, shall submit to the Engineer/Architect for approval, a complete schedule of submittals for shop drawings and technical and/or engineering data sheets covering all items and equipment for this Contract as listed in each respective division. Submit for approval ~~six (6)~~ **six (6) copies of certified Shop Drawings and technical data sheets** plus sufficient copies for Contractor's use. Approval of the above submissions shall not relieve the Control from complying with the Drawings and Specifications, nor shall such approval be construed as a guarantee of the accuracy of dimensions or other covered items. The Engineer shall endeavor to process all drawings, data sheets, etc., within 21 calendar days of receipt unless impractical. Except for construction schedule and schedule of values that need to be turned over directly to the City for review/approval, the Contractor shall forward all other submittals for review/approval to only one clearing house. The City will notify the Contractor during the Pre-Construction Conference where to send these submittals.

.1 Unless otherwise directed or specified, samples shall be submitted in duplicate. Samples shall be properly labeled, bearing the name and quality of material, name of the manufacturer, name of Project, name of the Contractor and the date of submission.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, ~~or will do so~~ and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. All copies of Shop Drawings submitted for approval shall bear the following statement: "Checked and certified correct for conformance with Contract Documents." This statement shall be dated and signed by the Contractor and shall appear on each submittal. One copy of each approved submittal shall be kept at job site at all times.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.

.1 The Contractor shall furnish to the field as many prints of the approved Shop Drawings as may be required.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all

performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.13 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.14.3 UNDERGROUND UTILITY DAMAGE PREVENTION ACT

The Contractor shall be required and agrees to comply with all the provisions of the Virginia Underground Utility Damage Prevention Act (Section 56-265.14, et seq. Code of Virginia, 1950, as amended) and hereby agrees to hold the City of Norfolk harmless against any loss, damages or claims of any nature whatsoever arising out of the Contractor's failure to comply with the requirements of said Act.

§ 3.15 CLEANING UP

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials from and about the Project. In addition, immediately after the completion of the Work, or any portion thereof, the Contractor shall restore the facility, street, and surrounding area to a condition as clean as before the Work was begun. The drainage system shall also be inspected and cleaned by the Contractor. If done by the City or its agents, any expense the City may incur will be charged against the Contractor and deducted before Final Payment is made. The Contractor will be required to back fill along the edges of the sidewalks, driveways and curbs where settlement has occurred, and reshape and reslope where directed. Site must be maintained regularly according to State and City regulations, including regular grass cutting. During the progress of the Work, the sidewalks and portions of the streets adjoining the Work, or in its vicinity, must not be obstructed or littered, and the adjacent sidewalks and gutters must be kept clean as directed by the Engineer.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and ~~Owner shall be entitled to reimbursement from~~ the costs thereof shall be charged to the Contractor.

§ 3.16 ACCESS TO WORK

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the

Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 3.18 INDEMNIFICATION

§ 3.18.1 To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity ~~that which~~ would otherwise exist as to a party or person described in this Section 3.18.

§3.18.1.1 The requirements of this Paragraph 3.18 shall be incorporated into the Contractor's insurance policies in a manner approved by the Owner.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 GENERAL

§ 4.1.1 ~~The Owner shall retain an architect-architect is the person~~ lawfully licensed to practice architecture or an entity lawfully practicing architecture ~~in the jurisdiction where the Project is located. That person or entity is identified as the Architect-identified as such~~ in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Architect" means the Architect or the Architect's authorized representative.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

~~§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.~~

§ 4.1.3. Intentionally Omitted.

§ 4.2 ADMINISTRATION OF THE CONTRACT

§ 4.2.1 As the Owner's Project representative, the Consulting Engineer's/Architect's duties, responsibilities and limitations of authority shall be presented during the Pre-Construction Conference. The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§4.2.1.1 Engineer – An individual or entity having a contract with the Owner to furnish services as Owner's independent professional consultant with respect to the Project and who is identified as such in the Agreement.

~~§ 4.2.2 The Architect-Architect, as a representative of the Owner, will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the Contractor's operations (1) to become familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that (2) to endeavor to guard the Owner against defects and deficiencies in the Work, when fully completed, will be~~

in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will ~~not have control over, charge of, or responsibility~~ neither have control over, or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

§4.2.15 Pre-Construction Conference. Before starting the Work, the Engineer/Architect/Owner will schedule a conference to review the requirements on such matters as Project supervision and on-site inspection, Shop Drawing schedules and submission, progress schedules and reports, payrolls, payments to contractors, contract change orders, insurance, safety, labor provisions and equal opportunity in employment and any other items pertinent to the Project. Present at the conference will be the Engineer/Architect, Owner, Project Representative, the Contractor, and its Superintendent for the project.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, ~~as soon as practicable within 15 days~~ after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for ~~each principal portion of the Work~~. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply within the ~~14 day 14 day~~ period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. ~~If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order~~

Init.

~~shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.~~

~~§ 5.2.4 The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner or Architect Architect, upon written notice of such intent, makes reasonable objection to such substitution.~~

§ 5.3 SUBCONTRACTUAL RELATIONS

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

~~When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.~~

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

~~§ 5.4.3 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.~~

~~§ 5.4.3. Intentionally Omitted.~~

§ 5.5 SUBCONTRACTORS COORDINATION OF WORK

~~Every subcontractor performing work that affects others shall provide for all requirements of the other trades, notwithstanding the Contractor's responsibility to coordinate the Work. Should the work provided by unsuitable for the application of work by any other subcontractor, the subcontractor shall notify the Contractor and the Engineer in writing immediately. The Contractor is required to forward a copy of correspondence from his subcontractors providing notice of unsuitable work.~~

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or

operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. ~~If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15. subrogation..~~

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

§ 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 OWNER'S RIGHT TO CLEAN UP

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement ~~among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or between the Owner and Contractor; a~~

Construction Change Directive may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

§7.1.4 Modifications shall be in compliance with the Code of the City of Norfolk, Virginia, Chapter 33.1

§ 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 ~~Unit prices stated in the Contract Documents or subsequently agreed upon;~~ Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer's/Architect's recommendation to City as follows:

Engineer/Architect will review with Contractor the Engineer's/Architect's preliminary determinations on such matters before rendering a written recommendation thereon (by endorsement of an Application for Payment or otherwise). City's written decision thereon (by approval of Application for Payment or otherwise) will be final and binding (except as modified by Engineer/Architect to reflect changed factual conditions or more accurate data) upon Contractor, subject to the provisions of Paragraph 7.3.4.

- ~~.3 Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item..3~~ Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee;
or
- .4 As provided in Section 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably ~~adjusted~~ adjusted provided that there is no corresponding adjustment with respect to any other item of Work.

§ 7.3.5 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.6 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 ~~Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and~~ Overhead and Profit: Overhead and profit costs, except where such costs have been determined by means of clause 7.3.3.2 above, wherein such costs are included in the unit prices, shall be determined as follows:

Fifteen percent (15%) of the costs determined above shall be paid for overhead and profit of the Contractor or subcontractor(s) actually performing the work, including, but not limited to, field and home office expense, superintendent, taxes, subsistence expenses of any nature, premiums on bonds, insurance, and all other costs and expenses as determined by the City.

In the event the work is performed by a subcontractor or subcontractors, the Contractor shall be paid ten percent (10%) of the total of the costs determined above, excluding the subcontractor's or subcontractors' overhead and profit, to cover and compensate the Contractor for its overhead and profit;

- .5 ~~Additional costs of supervision and field office personnel directly attributable to the change.~~
Intentionally Omitted.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the ~~Architect~~ Architect plus overhead and profit to actual net cost. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, ~~the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remains in dispute, the Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim costs. That determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.~~

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 MINOR CHANGES IN THE WORK

The Architect has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

ARTICLE 8 TIME

§ 8.1 DEFINITIONS

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 PROGRESS AND COMPLETION

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the ~~Owner pending mediation and arbitration;~~ Owner; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as

the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 9.3 APPLICATIONS FOR PAYMENT

Based upon Applications for Payment submitted to the Engineer by the Contractor and certificates for payment issued by the Engineer, the City shall make monthly progress payments on account of the Contract Sum to the Contractor as provided in these General Conditions of the Contract as follows:

The City will endeavor to pay the Contractor, on or about the thirtieth calendar day after receipt of Request for Payment, ninety-five (95%) of the portion of the Contract Sum properly allocated to labor, materials and equipment incorporated in the work and ninety-five percent (95%) of the portion of the Contract Sum properly allocated to materials and equipment suitably stored at the site or at some other location agreed upon in writing by the parties, less the aggregate of previous payments in each case; provided however, the City, at any time after fifty percent (50%) of the Work has been completed, if it finds that satisfactory progress is being made, may in its sole discretion may any of the remaining partial payments in full. Also, upon Substantial Completion of the Work, the City may increase total payment to one hundred percent (100%) of the Contract sum, less such retainage as the Engineer shall determine for incomplete work and unsettled claims. But such full payment or payments shall in no manner be construed as reducing the amount of the bond or the liability of the Surety thereon, until Final Completion and acceptance of all lines of Work herein set forth. Final Payment shall be made upon completion of all work and acceptance by the Engineer in accordance with the General Conditions.

The action of the Engineer by which the Contractor is to be bound according to the terms of this Contract shall be evidenced by his final estimate and certificate, all prior estimates upon which ninety-five percent (95%) or more may be made, being merely payments on account, and not payments for accepted work, and subject to the corrections of such final estimate, which may be made without notice to the Contractor thereof, or of the measurements upon which the same is based.

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such application ~~shall be notarized, if required, shall, certified by an officer of the firm~~ and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, ~~or by interim determinations of the Architect,~~ but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

Init.

§ 9.4 CERTIFICATES FOR PAYMENT

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents-~~Documents~~, or
- .8 failure to comply with obligations under the Contract.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld. The City reserves the right to determine payment made.

§ 9.5.3 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on the next Certificate for Payment.

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor no later than seven days after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

~~§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.~~

§ 9.6.3. A Subcontractor inquiry for progress payment and other information shall be directed to the City Attorney's office under the Freedom of Information Act.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

§ 9.6.5 Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.7 FAILURE OF PAYMENT

~~If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.~~ Intentionally Omitted.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification

Init.

by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. The Contractor shall submit a Contractor's release from liens, claims, security interests or encumbrances

Init.

along with final invoice. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Contractor shall provide temporary fences, barricades, coverings, or other protection to preserve existing items indicated to remain and to prevent injury or damage to persons or property.

This includes providing protection of the Work, materials, appliances and fixtures against weather, rain, wind, storms, freezing or heat. At the end of the day's work, work likely to be damaged shall be properly protected. For work on existing buildings, the Contractor shall accomplish the work in such a manner that the remainder of the building, and its contents and inhabitants, are fully protected from any weather damage.

The contractor shall be responsible for ensuring that adequate measures are taken to secure materials and equipment during the progress of the Work to prevent storm-related hazards. It is, therefore, essential that the contractor take necessary precautions to ensure that openings in the building are monitored carefully. The Contractor shall take immediate actions required to seal of such openings when rain or other detrimental weather is imminent, and at the end of each workday; and ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

The provisions of this subparagraph take precedence over any similar provisions contained in the technical specifications.

Init.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 HAZARDOUS MATERIALS

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. ~~If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection.~~ ~~Owner.~~ When the material or substance has been rendered harmless, Work in the affected area shall resume upon written ~~agreement of the Owner~~ ~~direction by the City~~ and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up.

Init.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.3. Intentionally Omitted.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. site. The Owner shall be responsible for materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

§ 10.4.1 Emergency Conditions. The issuance of a Declaration of Emergency conditions by any authorized government official may result in the suspension of the Work under the Contract and/or the ordering by the City of additional work. The Contractor shall make available to the City, during the time of the declared emergency, labor and equipment for such services under the terms and conditions of the Contract. Labor and equipment rates shall not exceed FEMA reimbursable rates for the Hampton Roads area. Failure to comply with such emergency directives may result in termination of the Contract by reason of non-compliance.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

See Subparagraphs 3.18.1 and 10.3.1

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;

- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability. All liability policies shall be written in an occurrence form unless otherwise specifically approved by the City.

The Contractor shall secure and maintain in force insurance, including malicious mischief and vandalism, with minimum acceptable amounts described below, naming the City as additional insured during the life of the Contract:

<u>.1</u>	<u>Worker's Compensation</u>	<u>Statutory</u>
	<u>Employer's Liability</u>	<u>\$ 200,000 per accident injury</u>
<u>.2</u>	<u>Commercial General Liability</u>	<u>Combined single limit \$3,000,000 or</u>
		<u>\$2,000,000 per occurrence</u>
		<u>\$3,000,000 aggregate</u>
		<u>\$3,000,000 products & completed</u>
		<u>operations</u>

The Commercial General Liability Insurance required above shall include the following extensions of coverage:

- (1) The coverage shall be provided under a Comprehensive form of policy or similar thereto.
- (2) X.C.U. Coverage – If the Contract requires any work procedures involving blasting, excavating, tunneling or other underground work, the liability coverage shall include Standard Blasting or Explosion Coverage, Standard Collapse Coverage and Standard Underground Coverage, commonly referred to as XCU liability coverage with limits of \$500,000 per occurrence and \$1,000,000 aggregate.
- (3) Broad Form Property Damage Endorsement.
- (4) Contractual Liability coverage shall be included.
- (5) Protective Liability coverage shall be included to protect the Contractor against claims arising out of operations performed by its Subcontractors.
- (6) Products Liability and/or Completed Operations coverage shall be included.

<u>.3</u>	<u>Comprehensive Automobile Liability including owned, non-owned and hired vehicles:</u>	
	<u>Combined Single limit each accident</u>	<u>\$2,000,000</u>
	<u>Bodily Injury</u>	<u>\$1,000,000 per person</u>
		<u>\$2,000,000 per occurrence</u>
		<u>\$2,000,000 aggregate</u>
	<u>Property Damage</u>	<u>\$ 500,000 per occurrence</u>

.4 Environmental Impairment Liability Insurance. If applicable, as determined by the City, the Contractor shall procure and maintain during the life of the Contract Environmental Impairment Liability Insurance, which shall protect against all claims and costs including, but not limited to, bodily injury or property damage claims (including clean-up costs) caused by pollution conditions, as herein defined, arising from the contracted work. Pollution conditions means the discharge, dispersal, release or escape of smoke, vapor, soot, fumes, acids, alkalis, toxic chemicals, liquids, gases, waste materials or other irritants, contaminants, or pollutants into or upon land, the atmosphere or any watercourse or body of water, which results in bodily injury or property damage. The

Init.

policy limits will be determined by the City and specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or as prescribed by City, State or Federal law/regulations..

Coverages, written on a claims-made basis, shall be maintained without interruption from the date of commencement of the Work until at least one year following the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.3. All insurance policies required hereunder shall contain an express provision therein, or endorsement attached thereto, worded substantially as follows:

"This is not to be cancelled or become subject to reduction of coverage prior to thirty days after the insured has received written notice mailed to the address noted hereinbefore, as evidenced by return receipt of registered letter."

All insurance certificates and/or policies shall designate the City of Norfolk, its employees, and its agents as "additional insured" regarding the contracted Work.

Certificates of Insurance issued by companies licensed within the Commonwealth of Virginia shall provide the designed insurance.

Contractor shall notify the City in writing within 10 days after receiving notice of any cancellation or reduction in coverage.

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations. SUBCONTRACTOR'S INSURANCE. The Contractor shall required all subcontractors to secure and maintain in force insurance containing the same coverage and amounts as described in Subparagraph 11.1.2..

§ 11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.. Intentionally Omitted.

§ 11.3 PROPERTY INSURANCE

§ 11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered,

Init.

whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

~~§ 11.3.1.1 Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.~~

~~§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.~~

~~§ 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.~~

~~§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.~~

~~§ 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.~~

§ 11.3.1. Until the Work is completed and accepted by the City, the Contractor shall purchase and maintain a Builder's Risk or property insurance as is appropriate upon the entire Work at the Site to the full insurable value thereof.

§ 11.3.1.1. Intentionally Omitted.

§ 11.3.1.2. Intentionally Omitted.

§ 11.3.1.3. Intentionally Omitted.

§ 11.3.1.4. Intentionally Omitted.

§ 11.3.1.5. Intentionally Omitted.

§ 11.3.2 BOILER AND MACHINERY INSURANCE

~~The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.~~ Intentionally Omitted.

§ 11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 11.3.7 WAIVERS OF SUBROGATION

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved in the manner selected by the Owner and Contractor as the method of binding dispute resolution in the Agreement. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished. A Performance Bond and Payment Bond Rider is required for all Change Orders that are in the amount of \$100,000 or greater; or, if the aggregate total of multiple Change Orders is equal to or greater than \$100,000.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

§ 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 AFTER SUBSTANTIAL COMPLETION

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

~~§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.~~

§ 12.2.2.3. Intentionally Omitted.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until

after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.5.5 If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

~~Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.~~ Intentionally Omitted.

§ 13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

~~§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:~~

- ~~1— Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;~~
- ~~2— An act of government, such as a declaration of national emergency that requires all Work to be stopped;~~
- ~~3— Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or~~
- ~~4— The Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.~~

~~§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Section 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.~~

Init.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.1.1:

- .1 _____;
- .2 _____;
- .3 _____;
- .4 _____.

§ 14.1.2. Intentionally Omitted.

§ 14.1.3. Intentionally Omitted.

§ 14.1.4. Intentionally Omitted.

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the above reasons exist, the Owner, ~~upon certification by the Initial Decision Maker that sufficient cause exists to justify such action,~~ may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

Init.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work ~~not executed~~. executed and costs incurred from this termination.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.5 CLAIMS FOR ADDITIONAL TIME

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.5.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

Init.

§ 15.1.6 CLAIMS FOR CONSEQUENTIAL DAMAGES

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 INITIAL DECISION

§ 15.2.1 Decision of Owner. Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial ~~decision, evaluation and recommendation.~~ The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an ~~initial decision~~ final decision by the Owner shall be required as a condition precedent to ~~mediation of any Claim~~ litigation of all Claims between the Contractor and Owner arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the ~~Initial Decision Maker~~ Architect with no decision having been ~~rendered, rendered by the Owner.~~ Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not ~~decide~~ evaluate disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The ~~Initial Decision Maker~~ Architect will review Claims and within ten days of the receipt of a ~~the~~ Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) ~~reject-recommend rejection~~ of the Claim in whole or in part, (3) ~~approve-recommend approval~~ of the Claim, (4) ~~suggest-recommend~~ a compromise, or (5) advise the parties that the ~~Initial Decision Maker~~ Architect is unable to resolve the Claim if the ~~Initial Decision Maker~~ Architect lacks sufficient information to evaluate the merits of the Claim or if the ~~Initial Decision Maker~~ Architect concludes that, in the ~~Initial Decision Maker's~~ Architect's sole discretion, it would be inappropriate for the ~~Initial Decision Maker~~ to ~~resolve~~ Architect to recommend resolution of the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will ~~either reject or approve-recommend~~ either rejection or approval of the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will ~~render an initial decision~~ recommend approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The ~~initial Owner's~~ decision shall be final and binding ~~on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution subject of mediation or arbitration..~~

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

~~§ 15.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.~~

§ 15.2.6. Intentionally Omitted.

§ 15.2.6.1. Intentionally Omitted.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 MEDIATION

~~§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.6 shall be subject to mediation as a condition precedent to binding dispute resolution.~~

~~§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.~~

~~§ 15.3.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.~~

§ 15.3.1. Intentionally Omitted.

§ 15.3.2. Intentionally Omitted.

§ 15.3.3. Intentionally Omitted.

§ 15.4 ARBITRATION

~~§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.~~

~~§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.~~

~~§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.~~

~~§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.~~

§ 15.4.1. Intentionally Omitted.

§ 15.4.1.1. Intentionally Omitted.

§ 15.4.2. Intentionally Omitted.

§ 15.4.3. Intentionally Omitted.

§ 15.4.4 CONSOLIDATION OR JOINDER

~~§ 15.4.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).~~

~~§ 15.4.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.~~

§ 15.4.4.1. Intentionally Omitted.

§ 15.4.4.2. Intentionally Omitted.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Contractor under this Agreement. Intentionally Omitted.

PART II

1. SCHEDULES AND REPORTS

Contractor shall submit for approval the following items in four (4) copies prior to commencing the Work:

- a. A complete, detailed construction progress schedule in weekly increments, showing anticipated start and completion of all sections of the Work. Also, see sections 3.10 and 3.10.1
- b. A complete list of Subcontractors
- c. A breakdown of the Project contract price for use in processing monthly requisitions.
- d. A projection of contract's monthly cash flow requirements for the duration of the Project.
- e. The above requirements may be waived for small projects at the discretion of the Engineer.

2. MINORITY PARTICIPATION

Init.

The Contractor shall notify the City in writing of the names of any minority and disadvantaged business subcontractors to be used on the Project, including the estimated dollar amount of such subcontract and the minority classification of such subcontractors. A minority and disadvantaged business is one that is at least 51% owned by an Asian American, Black, Hispanic, and American Indian, Eskimo, Aleut, or Female.

3. EROSION & SEDIMENT CONTROL

On construction projects that are required by the City's Erosion & Sediment Control ordinance (City Code Chapter 15) to have an approved erosion and sediment control plan, the Contractor shall be required to implement the approved plan and comply with all conditions of the plan. A copy of the approved plan and the Virginia Erosion and Sediment Control Handbook. (Third Edition, 1992) shall be kept at the City. If the Contractor determines that the approved plan can not be effectively carried out, the contractor shall be responsible for notifying the plan approving authority and requesting a plan amendment as provided for in the Virginia Erosion and Sediment Control Law (Code of Virginia Title 10.1, Chapter 5, Article 4, Section 10.1-563C).

4. RIGHT TO AUDIT

For cost-reimbursement contracts, change orders issued for fixed priced contracts or other contracts in excess of \$30,000, which include the provisions of services, the Contractor shall retain all books, records and other documents relative to this Contract for five (5) years after final payment or until audited by the Office of the City Auditors shall have full access to and the right to examine and duplicate any of said materials during said period.

DESCRIPTION OF ITEMS

Bid Item No. 1 – Curb and Gutter Removal

Shall consist of all materials, equipment and labor required to remove and dispose of concrete and/or granite curb and gutter along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Curb and Gutter Removal shall be paid for by the linear foot of curb and gutter removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 2 – Concrete Sidewalk and Curb Ramp Removal

Shall consist of all materials, equipment and labor required to remove and dispose of concrete sidewalk and/or curb ramps along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Concrete Sidewalk and Curb Ramp Removal shall be paid for by the square yard. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 3 – Unit Paver Removal

Shall consist of all materials, equipment and labor required to remove and dispose of pavers along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Unit Paver Removal shall be paid for by the square yard removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 4 – Asphalt Sidewalk Removal

Shall consist of all materials, equipment and labor required to remove and dispose of asphalt sidewalks along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Asphalt Sidewalk Removal shall be paid for by the square yard removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 5 – Concrete Driveway Apron Removal (up to 8-inches thick)

Shall consist of all materials, equipment and labor required to remove and dispose of concrete driveway apron (up to 8-inches thick) along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Concrete Driveway Apron Removal (up to 8-inches thick) shall be paid for by the square yard removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 6 - Asphalt Pavement Removal

Shall consist of all materials, equipment and labor required to remove and dispose of asphalt pavement along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Asphalt Pavement Unit Paver Removal shall be paid for by the square yard removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 7 – Reinforced Concrete Pavement and Valley Gutter Removal (9-inches thick)

Shall consist of all materials, equipment and labor required to remove and dispose of reinforced concrete pavement and valley gutter up to 9-inches thick along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Reinforced Concrete Pavement and Valley Gutter Removal (9-inches thick) shall be paid for by the square yard removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 8 – Drop Inlet Removal

Shall consist of all materials, equipment and labor required to remove and dispose of drop inlets along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Drop Inlet Removal shall be paid for by the individual number of inlets removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 9 – Catch Basin Removal

Shall consist of all materials, equipment and labor required to remove and dispose of catch basins along with any associated base materials in conformance with the contract specifications. Removal shall include saw cutting of asphalt and/or concrete as required to provide for neat and clean removal of items. All material removed shall be removed from the site and disposed of at an authorized disposal site at no additional cost to the City.

Catch Basin Removal shall be paid for by the number of basins removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 10 – Tree Removal (12' – 23" diameter)

Shall consist of all materials, equipment and labor required to remove and dispose of trees between 12" and 23" in diameter in conformance with the contract specifications. Removal shall include tree, stump, and root system. In lieu of stump removal, contractor may elect to grind the stump at no additional cost. If grinding is used, such shall be in accordance with the following:

1. In the road pavement area – 18" below the bottom of the base material.
2. Under the curb and/or curb and gutter – 18" below the bottom of the curb and/or curb and gutter.

Tree Removal (12' – 23" diameter shall be paid for by the number of trees removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 11 - Tree Removal (24' – 42" diameter)

Shall consist of all materials, equipment and labor required to remove and dispose of trees between 24" and 42" in diameter in conformance with the contract specifications. Removal shall include tree, stump, and root system. In lieu of stump removal, contractor may elect to grind the stump at no additional cost. If grinding is used, such shall be in accordance with the following:

1. In the road pavement area – 18" below the bottom of the base material.
2. Under the curb and/or curb and gutter – 18" below the bottom of the curb and/or curb and gutter.

Tree Removal (24' – 42" diameter shall be paid for by the number of trees removed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 12 – Excavation (up to 4 feet deep)

Shall consist of all materials, equipment and labor required to excavate up to 4 feet deep in conformance with the contract specifications that is not incidental to any other items such as curb and gutter removal or installation. This item includes excavation of unsuitable subbase soils as determined and approved by the City prior to excavation.

Excavation (up to 4 feet deep) shall be paid for by the cubic yard of material removed. Disposal of unsuitable material shall be considered incidental to this item.

Bid Item No. 13 – Norfolk STD. HS-202 (7-inch curb)

Shall consist of all materials, equipment and labor required to install Norfolk Standard HS-202 (7" curb) including base preparation and stone base in conformance with the contract specifications.

Norfolk STD. HS-202 (7-inch curb) shall be paid for by the linear feet of curb installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 14 – VDOT CG-6 (6-inch curb)

Shall consist of all materials, equipment and labor required to install VDOT CG-6 (6-inch curb) including base preparation and stone base in conformance with the contract specifications.

VDOT CG-6 (6-inch curb) shall be paid for by the linear feet of curb installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 15 - Norfolk STD. HS-201 (Parkway curb)

Shall consist of all materials, equipment and labor required to install Norfolk Standard HS-201 (Parkway curb) including base preparation and stone base in conformance with the contract specifications.

Norfolk STD. HS-201 (Parkway curb) shall be paid for by the linear feet of curb installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 16 - Norfolk STD. HS-204 (Roll curb)

Shall consist of all materials, equipment and labor required to install Norfolk Standard HS-204 (Roll curb) including base preparation and stone base in conformance with the contract specifications.

Norfolk STD. HS-204 (Roll curb) shall be paid for by the linear feet of curb installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 17 – Concrete Driveway Apron Residential (6-inch thick)

Shall consist of all materials, equipment and labor required to install residential concrete driveway apron (6-inch thick) in conformance with the contract specifications.

Concrete Driveway Apron Residential (6-inch thick) shall be paid for by the square yard. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 18 - Concrete Driveway Apron Commercial (8-inch thick)

Shall consist of all materials, equipment and labor required to install commercial concrete driveway apron (8-inch thick) in conformance with the contract specifications.

Concrete Driveway Apron Commercial (8-inch thick) shall be paid for by the square yard. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 19 – Concrete Sidewalk (Norfolk Standard. HS-207)

Shall consist of all materials, equipment and labor required to install concrete sidewalk (Norfolk Standard HS-207) in conformance with the contract specifications.

Concrete Sidewalk (Norfolk Standard. HS-207) shall be paid for by the square yard installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 20 – Concrete Pavement (Norfolk Standard HS 303)

Shall consist of all materials, equipment and labor required to install concrete pavement (Norfolk Standard HS-303) in conformance with the contract specifications.

Concrete Pavement (Norfolk Standard. HS-303) shall be paid for by the square yard installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 21 – Valley Gutter (Norfolk Standard HS-202)

Shall consist of all materials, equipment and labor required to install valley gutter (Norfolk Standard HS-202) in conformance with the contract specifications.

Valley Gutter (Norfolk STD. HS-202) shall be paid for by the square yard installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 22 – Asphalt Pavement Milling

Shall consist of all materials, equipment and labor required to mill asphalt a depth of 2- inches in conformance with the contract specifications.

Asphalt Pavement Milling shall be paid for by the square yards removed. Disposal shall be considered incidental to this item.

Bid Item No. 23 – S-5 Asphalt Pavement Overlay

Shall consist of all materials, equipment and labor required to provide asphalt overlay in conformance with the contract specifications.

S-5 Asphalt Pavement Overlay shall be paid for by the ton.

Bid Item No. 24 – S-5 Asphalt Pavement Patch (includes 3-inch overlay and 6-inch stone base)

Shall consist of all materials, equipment and labor required to provide S-5 asphalt pavement patch over a 6-inch stone base in conformance with the contract specifications.

S-5 Asphalt Pavement Patch (includes 3-inch overlay and 6-inch stone base) shall be paid for by the square yard. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 25 – Base Asphalt (Type BM-2)

Shall consist of all materials, equipment and labor required to provide base asphalt (Type BM-2) in conformance with the contract specifications.

Base Asphalt (Type BM-2) shall be paid for by the ton and shall not include the stone base.

Bid Item No. 26 – Aggregate Base Material (VDOT Standard 21A or 22)

Shall consist of all materials, equipment and labor required to place and compact aggregate base material (VDOT Standard 21A or 22) in conformance with the contract specifications.

Aggregate Base Material (VDOT Standard 21A or 22) shall be paid for by the ton.

Bid Item No. 27 – Course Aggregate (VDOT No. 57 or 68 Stone)

Shall consist of all materials, equipment and labor required to place and compact course aggregate (VDOT No. 57 or 68 Stone) in conformance with the contract specifications.

Course Aggregate (VDOT No. 57 or 68 Stone) shall be paid for by the ton.

Bid Item No. 28 – Select Fill Material

Shall consist of all materials, equipment and labor required to place and compact select material, CBR-21 in conformance with the contract specifications.

Backfill or Fill Material shall be paid for by the cubic yard.

Bid Item No. 29 – Curb Ramp (VDOT Standard CG-12A, CG-12B, or CG-12C with truncated domes)

Shall consist of all materials, equipment and labor required to install curb ramp (VDOT Standard CG-12A, CG-12B, or CG-12C with truncated domes) in conformance with the contract specifications.

Curb Ramp (VDOT Standard CG-12A, CG-12B, or CG-12C with truncated domes) shall be paid per each curb ramp installed. Curb or curb and gutter shall be paid under separate bid item. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 30 – 12-inch RCP Class III

Shall consist of all materials, equipment and labor required to install 12-inch RCP Class III (including excavation, shoring, dewatering, placement of aggregate bedding stone, connection to structures, wrapping joints, and backfilling to original grade) in conformance with the contract specifications.

12-inch RCP Class III shall be paid for by the linear foot. Excavation shall be considered incidental to this item.

Bid Item No. 31 - 15-inch RCP Class III

Shall consist of all materials, equipment and labor required to install 15-inch RCP Class III (including excavation, shoring, dewatering, placement of aggregate bedding stone, connection to structures, wrapping joints, and backfilling to original grade) in conformance with the contract specifications.

15-inch RCP Class III shall be paid for by the linear foot. Excavation shall be considered incidental to this item.

Bid Item No. 32 - 18-inch RCP Class III

Shall consist of all materials, equipment and labor required to install 18-inch RCP Class III (including excavation, shoring, dewatering, placement of aggregate bedding stone, connection to structures, wrapping joints, and backfilling to original grade) in conformance with the contract specifications.

18-inch RCP Class III shall be paid for by the linear foot. Excavation shall be considered incidental to this item.

Bid Item No. 33 - 24-inch RCP Class III

Shall consist of all materials, equipment and labor required to install 24-inch RCP Class III (including excavation, shoring, dewatering, placement of aggregate bedding stone, connection to structures, wrapping joints, and backfilling to original grade) in conformance with the contract specifications.

24-inch RCP Class III shall be paid for by the linear foot. Excavation shall be considered incidental to this item.

Bid Item No. 34 – Curb Inlet (with invert up to 4-feet below grade)

Shall consist of all materials, equipment and labor required to install curb inlet (with invert up to 4-feet below grade) in conformance with the contract specifications.

Curb Inlet (with invert up to 4-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 35 - Curb Inlet (with invert between 4 and 6-feet below grade)

Shall consist of all materials, equipment and labor required to install a curb inlet (with invert between 4 and 6-feet below grade) in conformance with the contract specifications.

Curb Inlet (with invert between 4 and 6-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 36 – Double Curb Inlet (with invert up to 4-feet below grade)

Shall consist of all materials, equipment and labor required to install a double curb inlet (with invert up to 4-feet below grade) in conformance with the contract specifications.

Double Curb Inlet (with invert up to 4-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 37 – Double Curb Inlet (with invert between 4 and 6-feet below grade)

Shall consist of all materials, equipment and labor required to install a double curb inlet (with invert between 4 and 6-feet below grade) in conformance with the contract specifications.

Double Curb Inlet (with invert between 4 and 6-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 38 – Grate Inlet (with invert up to 4-feet below grade)

Shall consist of all materials, equipment and labor required to install a grate inlet (with invert up to 4-feet below grade) in conformance with the contract specifications.

Grate Inlet (with invert up to 4-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 39 - Grate Inlet (with invert between 4 and 6-feet below grade)

Shall consist of all materials, equipment and labor required to install a grate inlet (with invert between 4 and 6-feet below grade) in conformance with the contract specifications.

Grate Inlet (with invert between 4 and 6-feet below grade) shall be paid for by the number of inlets installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 40 - Topsoil

Shall consist of all materials, equipment and labor required to install topsoil in conformance with the contract specifications.

Topsoil shall be paid for by the cubic yard. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 41 - Seeding

Shall consist of all materials, equipment and labor required to seed and fertilize in conformance with the contract specifications.

Seeding shall be paid for by the square yard. Site preparation and maintenance shall be considered incidental to this item.

Bid Item No. 42 – Sod

Shall consist of all materials, equipment and labor required to install sod in conformance with the contract specifications.

Sod shall be paid for by the square yard. Site preparation and maintenance shall be considered incidental to this item.

Bid Item No. 43 – Mulch

Shall consist of all materials, equipment and labor required to mulch in conformance with the contract specifications.

Mulch shall be paid for by the cubic yard. Site preparation and maintenance shall be considered incidental to this item.

Bid Item No. 44 – Inlet Protection

Shall consist of all materials, equipment and labor required to install inlet protection in conformance with the contract specifications. Inlet protection may consist of gravel and wire mesh drop inlet sediment filter, block and gravel drop inlet sediment filter, gravel curb inlet sediment filter, curb inlet protection with 2-inch x 4-inch wooden weir, or block and gravel curb inlet sediment filter as defined by the *Virginia Erosion and Sediment Control Handbook* (Third Ed., 1992).

Inlet Protection shall be paid for by the number of inlets protected. Maintenance and replacement shall be considered incidental to this item.

Bid Item No. 45 –Silt Fence

Shall consist of all materials, equipment and labor required to install silt fence in conformance with the contract specifications. Silt fence shall be as defined by the *Virginia Erosion and Sediment Control Handbook* (Third Ed., 1992).

Silt Fence shall be paid for by the linear feet of fence installed. Maintenance and replacement shall be considered incidental to this item.

Bid Item No. 46 – Tree Protection

Shall consist of all materials, equipment and labor required to provide, maintain, and remove tree protection in conformance with the contract specifications.

Tree Protection shall be paid for by the linear feet. Maintenance and replacement shall be considered incidental to this item.

Bid Item No. 47 – Tree Pit

Shall consist of all materials, equipment and labor required to install tree pits in conformance with the contract specifications. Work shall include excavation, placement of stone sump, geotextile, topsoil placement, and three-inch hardwood mulch layer.

Tree Pits shall be paid for by the number of tree pits installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 48 – VDOT Standard JB-1C Electrical Junction Box

Shall consist of all materials, equipment and labor required to install VDOT Standard JB-1C Electrical Junction Box in conformance with the contract specifications.

VDOT Standard JB-1C Electrical Junction Box shall be paid for by the number of boxes installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 49 – 3-inch Electrical Conduit

Shall consist of all materials, equipment and labor required to install 3-inch electrical conduit in conformance with the contract specifications.

3-inch Electrical Conduit shall be paid for by the linear foot installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 50 – Unit Pavers

Shall consist of all materials, equipment and labor required to install unit pavers in conformance with the contract specifications. This shall be for either the unit paver specified, brick, or concrete, as required by the project and shall include the cost of the setting bed, joint filler sand, asphalt joint filler, and rigid edging. Base course shall be paid for under other contract unit prices.

Unit Pavers shall be paid for by the square yard installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 51 – Traffic Control – Arterial Streets

Shall consist of all materials, equipment and labor required to provide traffic control adequate for a one-lane closure on an arterial street including, but not limited to channelizing devices and signage in conformance with the contract specifications.

Traffic Control – Arterial Streets shall be paid for by the number of days required. Maintenance and alteration shall be considered incidental to this item.

Bid Item No. 52 – Traffic Control – Downtown Area

Shall consist of all materials, equipment and labor required to provide traffic control adequate for a one-lane closure on a downtown street that is not considered an arterial including, but not limited to, channelizing devices, signage, and adequate pedestrian control in conformance with the contract specifications. Pedestrian traffic control is more stringent for work in Downtown.

Traffic Control – Downtown Area shall be paid for by the number of days required. Maintenance and alteration shall be considered incidental to this item.

Bid Item No. 53 – Arrow Board

Shall consist of all materials, equipment and labor required to provide an Arrow Board for traffic control in conformance with the contract specifications or as required by the City.

Arrow Board be paid for by the number of days required. Maintenance and alteration shall be considered incidental to this item.

Bid Item No. 54 – Relocate Signs

Shall consist of all materials, equipment and labor required to relocate existing signs in conformance with the contract specifications.

Sign Relocation shall be paid for by the number of signs relocated. Excavation, disposal, boring, concrete, etc. shall be considered incidental to this item.

Bid Item No. 55 – Install new Signs

Shall consist of all materials, equipment and labor required to install new signs in conformance with the contract specifications.

Install New Signs shall be paid for by the number of new signs installed. Excavation, disposal, boring, concrete, etc. shall be considered incidental to this item.

Bid Item No. 56 – Remove/Install Parking Meters

Shall consist of all materials, equipment and labor required to install or remove parking meters in conformance with the contract specifications. Meters shall be provided by the City.

Parking Meter Removal/Installation shall be paid for by the number of meters installed or the number of meters removed. A parking meter removed and then reinstalled would count as two pay units. Excavation, disposal, boring, concrete, etc. shall be considered incidental to this item.

Bid Item No. 57 – Remove/Re-Install Wheel Stops

Shall consist of all materials, equipment and labor required to remove or re-install wheel stops in conformance with the contract specifications.

Wheel Stop Removal/Re-Installation shall be paid for by the number of wheel stops removed or the number of wheel stops re-installed. Excavation, pavement patching and disposal shall be considered incidental to this item.

Bid Item No. 58 –Install New Wheel Stops

Shall consist of all materials, equipment and labor required to install a new wheel stops in conformance with the contract specifications.

New Wheel Stop Installation shall be paid for by the number of wheel stops installed. Excavation and disposal shall be considered incidental to this item.

Bid Item No. 59 – Install 4’ Chain Link Fence

Shall consist of all materials, equipment and labor required to install 4’ chain link fence in conformance with the contract specifications.

4’ Chain Link Fence shall be paid for by the linear foot installed. Excavation, disposal, boring, concrete, etc. shall be considered incidental to this item.

Bid Item No. 60– Light Pole Foundation (for 13’ pole) – Downtown

Shall consist of all materials, equipment and labor required to install light pole foundations in conformance with the contract specifications. This shall include excavation, disposal, concrete, steel reinforcement, anchor bolts and hardware.

Light Pole Foundation - Downtown shall be paid for by the number of foundations installed. Excavation and disposal shall be considered incidental to this item.

SECTION 2.1 – SPECIAL PROVISIONS

PART 1-GENERAL

The following sections, as listed in the "Table of Contents", shall comprise the Technical Specifications for this contract. The Special Provisions set forth heretofore in the specifications shall be made a part of these technical specifications and shall govern wherever applicable. This contract is a zero-dollar contract and quantity of work is not guaranteed as discussed below.

1.01 ALTERATION OF QUANTITIES:

- A.** The City will issue work orders to the Contractor on an as needed basis. The monetary value of the contract awarded to the Contractor will not necessarily equal the total amounts calculated based on the items shown in the bid documents. The quantities indicated in this document are intended to provide a uniform base for bidding purposes only.
- B.** The Engineer reserves the right to make, in writing, at any time during the work such changes as are necessary to complete the project. Such changes in alterations shall not invalidate the contract nor release the surety, and the Contractor.
- C.** The total bid shall be the basis of award for this contract. However, this contract is a zero-dollar contract with no guarantee of any work. Any assignment of work will be through individual work orders, for which prices will be based on the unit prices given in the bid proposal. The sum total of all work orders issued under this contract is not expected to exceed \$1,000,000 per year.
- D.** The Contractor is not obligated to honor any combination of work orders in excess of \$1,000,000 per year. This dollar limit may be modified by the mutual agreement of both parties with written notice to the Contractor from the Director of Public Works.

1.02 REFERENCE SPECIFICATIONS:

Standards and specifications from the following may be referred to in the detailed technical specifications. Unless otherwise noted, reference is to the latest dated publication of the specification or standard including any amendments or addenda.

A.A.S.H.T.O. American Association of State Highway and Transportation Officials

A.N.S.I. American National Standards Institute

A.S.T.M. American Society for Testing Materials

Virginia Department of Transportation (VDOT) Road and Bridges Specifications, current edition- Unless otherwise noted, all sections pertaining to measurement and payment shall be deleted.

Virginia Department of Transportation (VDOT) Road and Bridge Standards, current edition

Virginia Work Area Protection Manual

The Virginia Erosion and Sediment Control Handbook, Third Edition, 1992

The Federal Manual on Uniform Traffic Control Devices, current edition and the Virginia Supplement, dated January 1988

City of Norfolk Tree Ordinance and the Arboricultural Specifications and Standards of Practice Manual

City of Norfolk Department of Utilities Specifications

City of Norfolk Utility Cuts Policy Manual

City of Norfolk Right-of-Way Excavation Restoration Manual

1.03 INDICATED ITEMS:

Items not directly outlined in these specifications and attached details shall be constructed in accordance with the above referenced specifications. Measurement and payment for these items shall be as set forth in the Description of Items. If not set forth in the Description of Items, the cost of these items shall be included in the price bid for other items which may include this work, and no additional compensation will be considered.

1.04 CLEANUP DURING CONSTRUCTION OF PROJECT:

The Contractor shall on a continuous basis throughout the course of the Project, provide clean up and restoration of lawns, streets, drainage facilities, and adjacent properties within the project limits. Trash, debris, and other foreign matter shall be disposed of as directed by the Engineer in accordance with the specifications herein.

1.05 CLEANING UP ON COMPLETION OF PROJECT:

On completion of any of the work covered by any of the sections of this Project, the Contractor shall clean up entire premises occupied by his operations, and this area shall be left neat and clean of trash, debris, piles of earth, waste materials, and other foreign matter which shall be disposed of off site. The clean-up operation shall be complete and approved by the Owner prior to submitting the application for payment associated with the respective work order. The entire project or sections thereof shall be made ready for the Owner's use.

1.06 CALL BACK TIME:

If the Engineer deems any portion of the work unacceptable, the contractor shall replace the unacceptable work within 30 calendar days of receipt of written notice of unacceptability by the Engineer. This work shall be done at no additional cost to the City.

1.07 FIELD ENGINEERING AND SURVEYING:

The Contractor is responsible for all field engineering and surveying required to complete any project. The cost for all field engineering and surveying will be included in the bid price of the contract and no additional compensation will be made.

1.08 WORK ORDER:

All Work Orders issued under the contract shall be approved by the Engineer in writing after the scope of work, price and schedule for additional work are submitted in writing. The following procedures will be utilized in assigning specific additional work orders:

- A. By letter of transmittal, the City will send the Contractor two (2) sets of the proposed project plans, if applicable.
- B. Within five (5) working days from the date of the letter of transmittal referred to above, the Contractor will respond by letter to the Director of Public Works the following information. (Working days are counted Monday through Friday excluding City of Norfolk authorized holidays.)
 - 1. The Contractors agreement or disagreement with the estimated project quantities.
 - 2. The estimated project cost based on the agreed estimated quantities.
 - 3. Specify the length of time, in calendar days, that will be required to complete the project. The Contractor shall determine the duration by using the most current edition of the R.S. Means "Heavy Construction Cost Data."
- C. The City will respond within five (5) working days to the Contractors letter referred to above, either with a notice to proceed or a request for more information.
- D. A Notice to Proceed letter will be issued for each work order under this Contract and shall include the scope, cost of the work and the completion date. The Notice to Proceed letter will be issued prior to the actual commencement of any work. The Contractor shall commence work within five (5) days of the issuance of a Notice to Proceed.
- E. No one work order will exceed the amount of \$300,000.00 unless authorized by the Director of Public Works.
- F. During the contract period, the Contractor may be required to work on several different projects at several different locations simultaneously. There is no guarantee as to the location of these projects in relation to each other.
- G. Liquidated damages will vary based on the value of any individual work order issued. Liquidated damages will be calculated at 0.2 percent of the individual work order's value per day.
- H. Failure of the contractor to complete work or provide proposals as defined above may result in the City not awarding additional work to the contractor under this contract.

1.09 CONTRACT EXTENSION:

The City reserves the right to extend the contract for a fixed period of 1 year not to exceed 2 years beyond the original contract completion date for new work based on the same contract scope/specifications. The contract may be extended upon joint agreement of the City and the Contractor at the same unit prices of the original Contract. Both parties shall advise each other in writing of their intention to extend or not extend the contract at least (30) days prior to the contract completion date. **A new bond will be required with each renewal.**

1.10 DELAYS (WEATHER, ETC.):

The Contractor must submit for approval, with the applicable pay application, any claims for delay (weather, etc.).

1.11 SAFETY

Trenches opened in the vicinity of walks and/or streets shall be provided with suitable barriers. The work area will be further protected from sunset until sunrise with a sufficient number of lights or flares to fully protect the general public.

END OF SECTION 2.1

SECTION 2.2 - TRAFFIC CONTROL

PART 1 - GENERAL

The Contractor shall maintain traffic throughout the entire project site in accordance with all rules and regulations stipulated in the Specifications and under the direction of the City Chief Traffic Engineer. The Contractor will be required to obtain a Right of Way work permit from the Division of Right of Way before commencing any work in the right of way.

All traffic controls shall be in conformance with the latest editions or revisions to the Federal Manual on Uniform Traffic Control Devices (M.U.T.C.D) and the Virginia Work Area Protection Manual.

Two-way traffic shall be maintained at all times, unless otherwise approved. The Contractor shall not stop traffic without permission. Parking will be temporarily restricted where necessary to maintain two-way traffic flow. When one-way traffic is approved, the Contractor shall provide the necessary flagmen to direct such traffic.

Definitions of the Downtown area, and arterial streets are presented in Attachment A.

- A.** Downtown shall be defined as the area bounded by Brambleton Avenue to the North, St. Paul's Boulevard to the East, Boush Street to the West, and the Elizabeth River to the South.
- B.** Arterial Streets shall be defined by this contract as "major thoroughfares" that have an average daily traffic of over 15,000 vehicles per day and have a right of way width of 90 feet or greater. Arterial streets for the purpose of the contract shall be as listed in Attachment A and this list shall be the basis of this contract.

PART 2 - PRODUCTS

The use of reflective sheeting shall be in conformance with the following:

- A.** Encapsulated lens sheeting shall be used on signs (except logo sign business panels and orange construction/maintenance activity signs), barricades, vertical panels (group 2 channelizing devices), standard road edge delineators and special road edge delineators.
- B.** Reboundable sheeting shall be used on all cones, tubular delineators and drums.
- C.** Prismatic lens sheeting shall be used on barrier delineators, guardrail delineators, and interstate road edge delineators which utilize reflective sheeting.
- D.** Fluorescent prismatic lens sheeting shall be used on orange construction and maintenance activity signs, and barrier vertical panels installed on concrete traffic barrier service. Flexible sign base material (mesh signs) is still permitted for daytime use.
- E.** Reflective sheeting as noted in the logo standards shall be used on logo business panels.

PART 3 - EXECUTION

3.01 TRAFFIC CONTROL PLANS:

Where there is work that will interfere with the normal flow of traffic, the Contractor shall submit to the Department of Public Works, Division of Right of Way, for approval, a plan for the maintenance of traffic through the construction area. This plan shall show the type of warning signs, barricades, traffic cones, etc., and their placement and where flagmen, if necessary, will be stationed. This plan shall be submitted at least five (5) working days prior to the time the Contractor intends to begin work. The Contractor shall not begin any work, which will interfere with any traffic until the plan is approved by the City. The Contractor may be required by the City to modify the plan as work progresses.

3.02 MAINTENANCE DURING CONSTRUCTION:

The Contractor shall maintain the work from the beginning of the construction operations until final acceptance of this project. This maintenance shall constitute continuous and effective work executed day by day with adequate equipment and forces to the end that the roadway is kept in satisfactory condition at all times, and access to all abutting properties is maintained, including barricades and warning signs. Unless otherwise provided, the Contractor shall keep all streets and highways open to all traffic. The Contractor shall keep the portion of the road being used by public traffic, whether it be through or local traffic in such condition that traffic will be adequately accommodated; provided, however that snow and ice removal will not be required for the accommodation of the traffic.

3.03 INGRESS/EGRESS FOR ADJACENT PROPERTIES:

The Contractor shall maintain ingress to and egress from all business and residential properties during construction at no additional cost. The Contractor shall maintain ingress to and egress from residential properties at all times or coordinate work with residents so they understand constraints during work.

3.04 FLAGGING TRAFFIC:

Certified, competent, courteous, and neat flagmen shall be provided in sufficient numbers to orderly control, and if necessary, to stop traffic, advise the public concerning delays, and the manner in which they should proceed, and to keep traffic in their respective lanes along the project. The flagmen shall use either flags or sign paddles to regulate traffic; however, the use of both flags and sign paddles on the same project will not be allowed.

- A. Flags should be red, at least 24 by 24 inches in size, made of good grade of bright red material secured to a staff approximately 36 inches in length. The free edge shall be weighted to insure that the flag will hang vertically, even in high wind. Sign paddles bearing the regulatory message "STOP" or "SLOW" shall be fabricated from sheet metal or other light, semi-rigid reflectorized material. They shall be at least 10 inches long. The lettering on the paddles shall be 6-inch Series C letters (in accordance with the Federal Manual on Uniform Traffic Control Devices -

MUTCD). The background of the "STOP" face of the combination sign paddle shall be red and octagon shaped with white letters and border. The background of the "SLOW" face shall be orange and diamond shaped with black letters and border.

- B. Signalized intersections will require off-duty police officers to maintain traffic flow. Flaggers shall not be used at signalized intersections.

3.05 BARRICADE AND WARNING SIGNS:

The Contractor will provide and erect any required signs and/or barricades when necessary to alert motorists and pedestrians of changed traffic conditions. The Contractor shall provide standard signs, standard portable and non-portable barricades, reflectorized drums, arrow lights, temporary striping, and other types of delineators required to direct traffic around the limits of the work area.

- A. During progress of the work, these delineators shall be erected, maintained and moved by the Contractor as required or as directed by the Engineer.
- B. Streets closed to traffic shall be protected by effective barricades and obstructions shall be illuminated during hours of darkness.
- C. Within urban areas, particular emphasis should be placed on pedestrian traffic control provisions such as, but not limited to, advanced warning and pedestrian detour routes.

3.06 TRAFFIC CONTROL PLANS:

Where there is work that will interfere with the normal flow of traffic, the Contractor shall submit to the Department of Public Works, Division of Right of Way, for approval, a plan for the maintenance of traffic through the construction area. The plan shall show the type of warning signs, barricades, traffic cones, etc. and their placement and where flagmen, if required, will be stationed. This plan shall be submitted at least five (5) working days prior to the time the Contractor intends to begin work. The Contractor shall not begin any work which will interfere with traffic until the plan is approved by the City. The Contractor may be required by the City to modify the plan as work progresses.

3.07 MEASUREMENT AND PAYMENT

- A. All costs associated with providing traffic control on residential and collector streets including labor, material, and equipment shall be borne by the Contractor and be incidental to the work.
- B. Costs for providing traffic control on arterial streets shall be provided by Contractor on a contract unit price basis. Contract unit pricing shall include the cost of all labor, materials, and equipment to provide traffic control adequate for a one-lane closure on an arterial street including but not limited to arrow boards, channelizing devices, and signage.

- C. Costs for providing traffic control in the downtown area shall be provided by Contractor on a contract unit price basis. Contract unit pricing shall include the cost of all labor, materials, and equipment to provide traffic control adequate for a one-lane closure on a downtown street that is not considered an arterial, including but not limited to, channelizing devices, signage, and adequate pedestrian control. Note that pedestrian control shall be addressed and access to businesses shall be required at all times.

END OF SECTION 2.2

Attachment A to Section 2.2
Norfolk Arterial Streets

Primary Arterials	Minor Arterials
<p>4th View St Admiral Taussig Blvd (Hampton Blvd to I564) Boush St (Main St to Brambleton Ave) Brambleton Ave Campostella Rd Church St (Monticello Ave to Granby St) Duke St (Brambleton Ave to Boush St) Granby St (Church St to I64) Hampton Blvd Little Creek Rd (Shore Dr to I64) Military Hwy Monticello Ave (St Pauls Blvd to Church St) Northampton Blvd Norview Ave (Azalea Garden Rd to I64) Ocean View Ave (Shore Dr to 4th View St) Park Ave (Virginia Beach Blvd to Princess Anne Rd) Princess Anne Rd (Park Ave to Military Hwy) Shore Dr St Paul's Blvd (Monticello Ave to Market St) Terminal Blvd Tidewater Dr (Little Creek Rd to Berkley Bridge) Virginia Beach Blvd (East City Line to Monticello Ave) Waterside Dr</p>	<p>21st St (Hampton Blvd to Monticello Ave) 26th St (Hampton Blvd to Lafayette Blvd) 27th St (Hampton Blvd to Lafayette Blvd) 38th St (Hampton Blvd to Granby St) Azalea Garden Rd (Virginia Beach Blvd to Little Creek Rd) Bainbridge Blvd (South Main St to City Line) Ballentine Blvd (Westminster Ave to Lafayette Blvd) Bay Ave (Naval Gate to Granby St) Bayview Blvd (Granby St to Capeview Ave) Berkley Ave (Ligon St to Indian River Rd) Berkley Ave Extended (Fauquier Ave to Campostella Rd) Boush St (Brambleton Ave to Virginia Beach Blvd) Chesapeake Blvd (Ocean View Ave to Lafayette Blvd) Church St (Wood St to Monticello Ave) City Hall Ave (Boush St to I264) Colley Ave (53rd St to Brambleton Ave) Cromwell Rd Granby St (I64 to Ocean View Ave) Indian River Rd (Berkley Ave to City Line) Ingleside Rd (Cromwell Rd to Virginia Beach Blvd) Jamestown Cresc (Hampton Blvd to 53rd St) Johnstons Rd (Sewells Point Rd to Little Creek Rd) Kempsville Rd Lafayette Blvd (Dupont Cir to Chesapeake Blvd) Liberty St (State St to City Line) Little Creek Rd (I64 to Hampton Blvd) Llewellyn Ave Monticello Ave (St Pauls Blvd to City Hall Ave) Newtown Rd (Kempsville Rd to North City Line) Norview Ave (I64 to Tidewater Dr) Ocean Ave (Granby St to Bay Ave) Olney Rd (Duke St to Colley Ave) Park Ave (Brambleton Ave to Virginia Beach Blvd) Princess Anne Rd (Hampton Blvd to Park Ave) Robin Hood Rd (Chesapeake Blvd to Military Hwy) Sewells Point Rd (Princess Anne Rd to Little Creek Rd) South Main St (Bainbridge Blvd to Berkley Ave) St Paul's Blvd (Market St to Waterside Dr) State St Thole St Tidewater Dr (Ocean View Ave to Little Creek Rd) Virginia Beach Blvd (Monticello Ave to Llewellyn Ave) Wesleyan Dr Willow Wood Dr (Tidewater Dr to Granby St) Wilson Rd</p>

Note: Traffic Control Requirements are the same for Primary and Minor Arterials

SECTION 2.3 - EROSION & SEDIMENT CONTROL

PART 1 -GENERAL

1.01 GENERAL REQUIREMENTS:

The Contractor shall furnish all labor, material, and equipment to protect the job site and immediate areas from damage due to erosion and siltation.

1.02 QUALITY CONTROL:

All erosion control measures shall be in accordance with the Virginia Erosion and Sediment Control Handbook, the Virginia Drainage Manual, and the VDOT Road & Bridge Specification, current editions.

1.03 INSPECTIONS:

Additional inspections for E&S control shall be performed by the City of Norfolk Environmental Department. Contact the department after E&S controls are in place, but prior to beginning work, for a pre-construction meeting. Contact number: (757) 664-4368.

PART 2 - PRODUCTS

All materials used in this project for erosion and sediment control shall conform to the applicable requirements of the referenced manuals and specifications.

PART 3 - EXECUTION

3.01 The Contractor shall exercise every reasonable precaution, including application of temporary and permanent environmental measures, throughout the duration of the project to control erosion and prevent eroded materials from leaving contract limits in addition to preventing siltation of rivers, streams, lakes, and impoundments. Such measures shall include, but are not limited to, the use of beams, dikes, dams, and sediment basins, and fiber mats, brush silt barriers, silt fences, netting, gravel or crushed stone, mulch, stage seeding, slope drains, inlet protection, and other methods.

3.02 Temporary and permanent erosion and siltation control measures shall all be applied to erodible material exposed by an activity associated with the construction including local material sources, stockpiles, waste areas, and all haul roads.

3.03 The Contractor shall inspect all temporary and permanent erosion and siltation control devices and measures for deficiencies prior to and immediately after each rainfall and at least daily during prolonged rainfall. Any deficiencies shall be immediately corrected by the Contractor. Failure on the part of the Contractor to adequately maintain all erosion and siltation control devices in a functional condition may result in the City of Norfolk representative notifying the Contractor in writing of the deficiencies.

3.04 In the event the Contractor fails to correct or to take appropriate actions to remedy the specified deficiencies within 24 hours after receipt of such notification, the City of Norfolk reserves the right to take appropriate actions to require the Contractor to discontinue work in other areas and to concentrate his efforts towards rectifying the specified deficiencies, or the City of Norfolk may proceed with adequate forces, equipment and materials to remedy the specified deficiencies and the entire cost of such work will be deducted from moneys due the Contractor.

END OF SECTION 2.3

SECTION 2.4 - DEMOLITION

PART 1 - GENERAL

This work shall consist of demolition and disposal of pavements, curbs, walks, entrances, fences, drainage structures, pipes, clearing and grubbing, to include all items which must be removed or abandoned in order to provide for the installation of improvements as shown on the plans. All demolition shall be incidental to removal items in this project.

1.01 PROJECT CONDITIONS

- A. Traffic: Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.
- B. Protection of Existing Structures:
 - 1. Provide necessary protection to prevent damage to existing structures indicated to remain in place.
 - 2. Protect structures on adjacent properties and on City property.
 - 3. Restore damaged structures to their original condition, as acceptable to owner.
- C. Protection of Existing Trees and Vegetation: Protect existing trees and other vegetation not indicated to be removed, against unnecessary cutting, breaking or skinning of roots, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide tree protection fencing at the drip line of trees indicated to remain. Employ a licensed "ISA Certified" arborist to prune roots and repair damages to trees and shrubs within the area of construction
 - 1. Water trees and other vegetation to remain within limits of contract work as required to maintain their health during course of construction operations. Contact the City Forester for specific instructions in watering requirements.
 - 2. Provide protection for roots over 1-1/2 inch in diameter that are cut during construction operations. Temporarily cover exposed roots with wet burlap to prevent roots from drying out; cover with earth as soon as possible.
 - 3. Repair or replace trees and vegetation not indicated to be removed which are damaged by construction operations, in a manner acceptable to the Engineer.
 - 4. Trees not indicated for removal which are damaged or destroyed through the

contractor's negligence will require full remuneration at the appraised value as determined by the City Forester or other ISA certified Arborist following guidelines established by the Council of Tree and Landscape Appraisers, 8th Edition.

- D. Improvements on Adjacent Property: Authority for performing removal and alteration work on private property adjacent to City property will be obtained by the City prior to performing work.

PART 2 – PRODUCTS

2.01 TREE PROTECTION

4 foot high, High-Visibility Polyethylene Fencing with wood or steel posts

PART 3 - EXECUTION

3.01 SITE CLEARING

- A. General: Remove trees, shrubs, grass and other vegetation, improvements, or obstructions as indicated on the plans to permit installation of new construction. Remove similar items elsewhere on site or premises as specifically indicated. "Removal" includes digging out and off-site disposal of stumps and roots.
- B. Removal of Structures: Remove existing above-grade and below-grade items as indicated and as necessary to facilitate new construction.
 - 1. The Engineer may elect to allow certain pipes to remain in place. Pipes so abandoned shall be plugged in an appropriate manner.
- D. Any pruning of trees located on City property not specifically shown on the plans to provide clearance for equipment, vehicles or completion of any improvements i.e. overhead utilities, adjacent structures, etc., must be approved by the City Forester under separate permit and completed by an ISA Certified Arborist in accordance with applicable National Arborists Association Pruning Standards. Clearance pruning of trees located on private property must be approved by the property owner and completed to the same standard as above.
- E. Use of explosives is not permitted.

3.02 DISPOSAL OF WASTE MATERIALS

- A. Burning is not permitted.
- B. Removal from City's Property: Remove all waste materials except for traffic and street

signs, or any item belonging to a Utility or Government agency.

- C. Ownership of Demolished or Excavated Items: The Contractor upon demolition or excavation of materials indicated for removal from the site shall be owner of said items. Items such as street signs, utilities, and historical markers shall remain the property of the City and the Contractor shall replace these items to their original condition. The Contractor shall remove all other items from the City's Right of Way and dispose of demolished or excavated items in a responsible manner in accordance with all federal, state, and local regulations.
- D. A haul permit will be required from the City of Norfolk.

END OF SECTION 2.4

SECTION 2.5 - EARTHWORK

PART 1 - GENERAL

1.01 DEFINITIONS:

- A.** Excavation consists of removal of materials to the subgrade elevations indicated on the plans and subsequent disposal of materials.
- B.** Unauthorized excavation consists of removal of materials beyond the indicated subgrade elevations or dimensions without the specific direction of the Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at Contractor's expense.
- C.** Additional excavation: When excavation has reached required subgrade elevations, notify the Engineer, who will make an inspection of conditions. If the Engineer determines that bearing materials at the required subgrade elevations are unsuitable, continue excavation until suitable bearing materials are encountered and replace excavated material as directed by the Engineer.
- D.** Subgrade: The undisturbed earth or the compacted soil layer immediately below granular sub-base, or topsoil materials.
- E.** Structures consist of buildings, foundations, slabs, tanks, curbs, or any man made stationary objects occurring above or below the ground surface.

1.02 PROJECT CONDITIONS:

A. Site Information:

- 1.** Data in subsurface investigation reports was used for the basis of the design and is available to the Contractor for information only. Conditions are not intended as representations or warranties of accuracy or continuity between soil borings. The City will not be responsible for interpretations or conclusions drawn from this data by the contractor.
- 2.** Additional test borings and other exploratory operations may be performed by the contractor, at the Contractor's option; however, no change in the Contractor's sum will be authorized for such additional expense.

B. Existing Utilities:

- 1.** Locate existing underground utilities in areas of excavation work. If utilities are indicated to remain in place, provide adequate means of support and protection during earthwork operations.

2. Should uncharted, or incorrectly charted piping or other utilities be encountered during excavation, consult utility owner and Engineer immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfy the utility owner.
 3. Provide minimum of 48 hours notice to Engineer and receive written notice to proceed before interrupting any utility.
 4. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shutoff of services if lines are active.
- C. Use of explosives is not permitted.
- D. Burning is not permitted.
- E. Protection of Persons and Property:
1. Barricade open excavations occurring as part of this work and post warning lights.
 2. Perform excavation by hand within the drip line of large trees to remain. Protect root systems from damage or dryout to the greatest extent possible. Maintain moist conditions for root systems and cover exposed roots with moist burlap.

1.03 SUBMITTALS:

- A. Provide gradations and test reports in accordance with AASHTO T27 or ASTM D422 or ASTM C136, as appropriate, for the following materials:
1. Aggregate Base Material (VDOT Std. 21A or 22)
 2. Coarse Aggregate No. 57 or 68 per ASTM C33
 3. Backfill or Fill per ASTM D422
 4. Field Density Test Reports, as required.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS:

- A. Satisfactory soils materials are defined as those complying with ASTM D2487 soil classification groups GW, GP, GM, SM, SW, and SP.
- B. Unsatisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.

- C. Aggregate Base Material shall be in accordance with VDOT Sec. 208, Type II, size 21A or 22.
- D. Coarse aggregate shall be in accordance with VDOT Sec. 203 for size No. 57, or other size approved by the Engineer.
- E. Backfill or Fill shall be satisfactory soil materials free of clay, rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

PART 3 - EXECUTION

3.01 EXCAVATION:

- A. Classification: Excavation is unclassified and includes excavation to subgrade elevations indicated, regardless of character of materials and obstructions encountered.
- B. Stability of excavation:
 - 1. Comply with local codes, ordinances, and requirements of agencies having jurisdiction.
 - 2. Slope sides of excavations to comply with local codes, ordinances, and requirements of agencies having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated. Maintain sides and slopes of excavation in safe condition until completion of backfilling.
 - 3. Shoring and Bracing: Provide materials for shoring and bracing, such as sheet piling, uprights, stringers, and cross braces, in good condition. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Extend shoring and bracing as excavation progresses.

3.02 DEWATERING:

- A. Prevent surface water and groundwater from flowing into the excavation and from flooding project site and surrounding area.
- B. Do not allow water to accumulate in the excavations. Remove water to prevent softening of foundation bottoms, and soil changes detrimental to stability of subgrades and foundations. The contractor will be responsible for dewatering the site within 24 hours of the start of a rainfall.
- C. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to collecting or runoff areas. Do not use trench excavations as temporary drainage ditches.

3.03 STORAGE OF EXCAVATED MATERIALS:

- A.** Stockpile excavated materials acceptable for backfill and fill in appropriate locations. Place, grade, and shape stockpiles for proper drainage. **MAINTAIN PROPER EROSION AND SEDIMENT CONTROL FOR STOCKPILE EXCAVATED MATERIALS.**
- B.** Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.
- C.** Dispose of excess excavated soil material and materials not suitable for use as backfill or fill, at an approved site.

3.04 EXCAVATION FOR STRUCTURES:

- A.** Excavation for basins: Conform to elevations on the plans. Do not disturb bottom of excavations intended for bearing surfaces.

3.05 EXCAVATION FOR PAVEMENT:

- A.** Cut surface under pavements to comply with cross-sections, elevations and grades as indicated.

3.06 TRENCH EXCAVATION FOR PIPES AND CONDUITS:

- A.** Excavate trenches to a uniform width, sufficiently wide to provide ample working room and a minimum of 12 in. of clearance on both sides.

3.07 COLD WEATHER PROTECTION:

- A.** Protect excavation bottoms against freezing when temperature is less than 35 degrees F.

3.08 PLACEMENT AND COMPACTION OF AGGREGATE MATERIALS, FILL AND BACK FILL:

- A. DO NOT BACKFILL TRENCHES UNTIL TESTS AND INSPECTIONS HAVE BEEN MADE AND BACKFILLING IS AUTHORIZED BY THE ENGINEER. USE CARE IN BACKFILLING TO AVOID DAMAGE OR DISPLACEMENT OF PIPE SYSTEM.**
- B.** Place backfill and fill material in layers not to exceed six inches in loose depth for material compacted by heavy compaction equipment, and not more than four inches for materials compacted by hand-operated tampers. Moisten or aerate each layer as necessary before compaction to provide optimum moisture content.
- C.** Percentage of Maximum Density:
 - 1.** Compact to 95% under structures and pavement.
 - 2.** Compact top 6 in. to 90% under lawns or unpaved areas.

3. Refer to specific sections for additional compaction and density requirements.

3.09 GRADING:

- A. Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finish surface.
- B. After grading, compact subgrade surfaces to required depths.
- C. During construction, maintain all lines and grades including crown and cross-slope of subbase course.

3.10 FIELD QUALITY CONTROL:

- A. Field density tests may be required at the discretion of the Engineer. If required by the Engineer, field moisture and density testing shall be performed in accordance with ASTM.

END OF SECTION 2.5

SECTION 2.6 - STORM DRAINAGE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Excavation and backfill operations shall be performed in conformance with VDOT Sec. 302, 303 and 303.04(g).
- B. Concrete work shall conform to the requirements of VDOT Sec. 217 for class A and Sec. 404.

1.02 QUALITY ASSURANCE

- A. Manufactures Qualifications: Firms regularly engaged in the manufacture of storm system's products of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. Codes and Standards: Comply with VDOT Road and Bridge Specifications, VDOT Road and Bridge Standards and City of Norfolk Standards, except as otherwise specified herein.
- C. PIPE TRENCHES MAY NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY THE CITY.

1.03 SUBMITTALS

- A. Submit manufacture's technical product data for the following storm system materials and products:
 - 1. Reinforced Concrete Pipe (RCP), for each size.
 - 2. Structural Castings
 - 3. Bedding Material
 - 4. Geotextile
 - 5. Stone Rip-Rap

PART 2 - PRODUCTS

2.01 PIPES AND PIPE FITTINGS

- A. Provide pipes of the following materials, of weight/class indicated; pipe fittings and accessories, joining methods, in accordance with VDOT Sec. 232 and 212.

1. RCP : ASTM C76-95a

2. All pipe joints shall follow manufacturer's specifications for sealing and jointing practices. All concrete pipe joints shall include a Fabric Joint Wrap in accordance with Norfolk Std. HS-42.

2.02 BEDDING MATERIAL

Bedding material shall conform to the requirements of VDOT Sec. 204 and 205.

2.03 STRUCTURAL CASTINGS

Precast structures conforming to VDOT Sec 302.03(b) may be used **ONLY WITH THE APPROVAL OF THE ENGINEER**

2.04 GEOTEXTILE

Geotextile shall conform to VDOT Section 245 for Rip Rap Bedding and or Drainage Fabric.

2.05 BRICK AND MORTAR FOR STRUCTURES

Brick shall conform to VDOT Section 222.02(b): Catch Basins and Manholes. Mortar shall conform to VDOT Section 218.

2.06 EROSION CONTROL MAT

Soil retention mats and soil stabilization mats shall conform to VDOT Section 244.

2.07 STONE RIPRAP

Riprap shall conform to VDOT Section 204 and 414.

PART 3 - EXECUTION

3.01 INSTALLATION OF IDENTIFICATION

Not applicable to this section

3.02 INSTALLATION OF PIPE AND PIPE FITTINGS

A. Install piping in accordance with VDOT Sec. 302.03 except as modified herein.

B. Inspect piping before installation to detect apparent defects. Mark defective materials with white or black paint and promptly remove from the site.

C. Lay pipe beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of the invert.

1. Place bell ends or groove ends of pipe facing upstream.
 2. Install in accordance with applicable provisions of VDOT Specifications 302.03- 2(a-d;g).
 3. Conduct backfill operations of open-cut trenches closely following laying, jointing, and bedding of pipe, and AFTER INITIAL INSPECTION AND TESTING ARE COMPLETED.
 4. To minimize local area traffic interruptions, allow no more than 100 ft. between pipe laying and point of complete backfilling.
- D. Cleaning Piping: Clear interior of piping of dirt and other superfluous material as work progresses. Maintain swab or drag line and pull past each joint as it is completed.
1. Place plugs in ends of completed conduit at end of day or whenever work stops.
 2. Flush all lines if required to remove collected debris.
- E. Inspection: Inspect piping to determine whether line displacement or other damage has occurred.
1. Make inspections after lines between manholes, or manhole locations have been installed and approximately 2 ft. of backfill is in place, and again at completion of project.
 2. If inspection indicates poor alignment, debris, displacement, infiltration or other defects, correct such defects and re-inspect.

3.03 INSTALLATION OF STRUCTURES

A. Structures

All structures shall be cast-in-place concrete or brick and mortar construction, unless approved in writing by the City Construction Engineer.

B. Backfilling of Structures

Backfill operations shall conform to VDOT Sec. 302 and 303 unless otherwise authorized by the Engineer. All surplus materials shall be removed from the site to leave a neat condition.

3.04 CLEANING OF DITCHES

A. General

The intent of ditch cleaning is to restore the flowline and increase/restore capacity of the ditches. All material removed from the ditches shall be removed from the City of Norfolk

Right of Way and disposed at an appropriate disposal facility. The contractor shall be responsible for providing adequate erosion and sediment controls for the projects including but not limited to silt curtains for submerged ditched, silt fence, etc. The cost of erosion and sediment control shall be incidental to ditch cleaning contract unit prices.

B. Earth-lined Roadside Ditch Cleaning

1. The contractor shall survey the ditches to be cleaned prior to starting work to determine control points regarding depth of excavation for cleaning. Cleaning shall start at the lowest end of the ditch and work upstream. If conflicts (e.g. incorrectly laid culverts or other obstructions) are found that are detrimental to maintaining flow in the ditch, the Contractor shall contact the City for further instructions on how to proceed.
2. Work shall be performed with any type of excavator; however, the bucket shall have a smooth cutting surface (i.e. teeth on the bucket are not acceptable). Rubber-tired excavators are preferred to prevent damage to the road surface.
3. The contractor shall not leave more than 100 feet of ditch disturbed at one time without seeding the disturbed areas and installing soil retention matting.

C. Concrete-lined Ditch Cleaning

The limits of sediment removal from concrete lined ditches shall be defined by the bottom of the concrete ditch. Work shall be performed with any type of excavator; however, the bucket shall have a smooth cutting surface (i.e. teeth on the bucket are not acceptable). Any structural damage to the concrete ditch created as a result of contractor activities shall be repaired at no cost to the City. If major structural damage to any structure is identified by the Contractor, the City shall be notified immediately.

3.05 RIPRAP INSTALLATION

Riprap installation shall be in accordance with the details and VDOT section 414.

END OF SECTION 2.6

SECTION 2.7 - ASPHALT CONCRETE PAVING

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

The work required under this section includes milling and installation of asphalt concrete patches and overlays.

1.02 SUBMITTALS

- A. Provide copies of job mix formulas and materials certificates, signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.
- B. The Contractor shall submit specifications of alternative materials to verify conformance with the contract documents and specifications. The Engineer, prior to installation, shall approve or disapprove the submittals.

1.03 QUALITY ASSURANCE

Codes and Standards: Comply with VDOT Road and Bridge Specifications

PART 2 - PRODUCTS

2.01 PAVING MATERIALS

- A. Asphalt concrete S-5 shall conform to VDOT 1987 Sec. 212.
- B. Base Asphalt Type BM-2 shall conform to VDOT 1994 Sec. 211.
- C. Aggregate Base Material shall be Type II, 21A or 22 in accordance with VDOT Sec. 208.
- D. Mineral filler shall be in accordance with VDOT Sec. 201.
- E. Prime Coat: No asphaltic primer shall be used. Wet prime only, as directed by the Engineer.
- F. Tack Coat in accordance with the emulsion provisions of VDOT Sec. 210.

PART 3 - EXECUTION

3.01 MILLING

- A. DESCRIPTION:** This work shall consist of milling the existing asphalt concrete surface in accordance with the specifications herein. The planed surface shall be free from gouges, grooves, ridges, sooting, oil film, and other Imperfections and shall be cleaned prior to paving. Any required patching caused by poor milling practices shall be done at the contractor's expense immediately after milling. The work also includes removing, transporting, and disposing of the milled materials. Milled material shall become the property of the Contractor. The Contractor shall dispose of all milled material in areas provided by him, except when the material is used in the work.
- B. MILLING 1" to 2":** This work shall consist of all material, labor and equipment necessary to perform milling at all areas indicated by the Engineer. Milling shall be performed at depths of at least one (1) inch, but not exceed two (2) inches, as directed by the Engineer.

3.02 ASPHALT CONCRETE

A. SITE CONDITIONS

1. Weather Limitations: Apply tack coat when ambient temperature is above 50 degrees F , and when temperature has not been below 35 degrees F for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.
2. Construct asphalt concrete surface course when atmospheric temperatures are above 40 degrees F, and when base is dry. Base course may be placed when air temperature is above 40 degrees F and rising.
3. Time Limitations After Milling: All areas within and adjacent to milling operations shall be cleaned and ready to pave the same day as milling operations. Actual resurfacing shall take place within seven (7) calendar days of milling the area.

B. SUBGRADE COMPACTION

1. Compact sub-grade in accordance with VDOT Sec. 305.
2. Compact aggregate base material in compliance with VDOT Sec. 309.
3. Notify Engineer of any unsatisfactory conditions. Do not begin paving work until deficient sub-base areas have been corrected and are ready to receive paving.

C. TACK COAT

1. Apply to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into asphalt concrete pavement. Distribution at rate of 0.05 to 0.10 gallons per square yard of surface.

2. Allow contact surface to cure before paving.
3. Exercise care in applying tack coat. Avoid smearing of adjacent concrete surfaces: clean damaged surfaces.

D. PLACEMENT

1. Place asphalt concrete mixture on prepared surface, spread and strike-off. The minimum laydown temperature of the asphalt shall be in accordance with VDOT Section 315 Table III-2. Place inaccessible and small areas by hand. Place each course to required grade, cross-section, and compacted thickness.
2. Make vertical joints between old and new pavement and between successive days work, to ensure continuous bond between adjoining work. Construct joints to have the same texture, density and smoothness as other sections of asphalt concrete course. Clean contact surfaces and apply tack coat.
3. Begin rolling when mixture will bear roller weight without excessive displacement. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
 - a. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
 - b. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

E. FIELD QUALITY CONTROL

1. Test in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness. Repair or remove and replace unacceptable paving as directed by the Engineer.
2. Thickness: In-place compacted thickness will not be acceptable if exceeding the following allowable variation from required thickness:
 - a. Base Course: 1/2", plus or minus
 - b. Surface Course: 1/4", plus or minus
3. Surface Smoothness: Test finished surface of each asphalt concrete course for smoothness, using a 10' straightedge applied parallel with, and at right angles to centerline of paved areas. Surfaces will not be acceptable if exceeding the following tolerances for smoothness:
 - a. Base Course Surface: 1/4"
 - b. Wearing Course Surface: 3/16"
4. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4".

5. Check surface at intervals as directed by the Engineer.

END OF SECTION 2.7

SECTION 2.8 - CONCRETE WORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Extent of concrete work includes curb, gutter, valley gutter, sidewalk, aprons, concrete pavement, curb ramps, pole foundations and drainage structures. Concrete work shall conform to the requirements of VDOT Sections 217, 404, 502, and 504. All concrete in the right of way shall be class "A-3" air entrained (3000 psi) unless otherwise specified.

1.02 SUBMITTALS

- A. Product Data: Submit data for proprietary materials and items, including forming accessories, admixtures, patching compounds, joint systems, curing compounds, and others as requested by the Engineer.
- B. Laboratory Test Reports: Submit laboratory test reports for concrete materials and mix design test.

1.03 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:
Virginia Department of Transportation, "Road and Bridge Specifications", current edition, (known hereinafter as VDOT), and City of Norfolk Standards.
- B. Concrete Testing Service: Engage a testing laboratory acceptable to the Engineer to perform material evaluation tests and to design concrete mixes.

1.04 PROJECT CONDITIONS

- A. Protect adjacent areas against spatter during concrete placement.
- B. Place barricades as necessary to prohibit pedestrian and vehicular access until concrete has cured.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Hydraulic cement concrete shall conform to the requirements of VDOT Sec. 217 & 502.02.
- B. High Early Strength Concrete for PAVEMENT PATCHES, VALLEY GUTTERS, AND DRIVEWAY APRONS shall be in accordance with CAPITAL CONCRETE MIX DESIGNATION: ALL PORTLAND/HRWR/AE, #4, or an approved equal as follows:

PORTLAND	705
SIKA AET	3.25
PLAST.161	21.1
SIKAMENT 86 (HRWR)	56.4
SAND	1090
GRAVEL	1850
WATER	30.5
W/C RATIO	0.36
SLUMP PRIOR HRWR	2-3"
SLUMP ATER HRWR	6-8"
AER	5
7 DAY TEST RESULT	5840
28 DAY TEST RESULT	7300

- C. Admixtures shall conform to the requirements of VDOT Sec. 215. Pole and post foundations do not require air entrainment.
- D. Joint material shall conform to the requirements of VDOT Sec. 212.
- E. Forms shall conform to the requirements of VDOT Sec. 502.03 & 316.04.
- F. Water shall be potable (suitable for drinking).
- G. Portland Cement: Shall conform to AASHTO M85 TYPE II for Class-A3 as set forth in VDOT Section 217 & 214.
- H. Concrete mixture for all concrete surfaces shall be from the same supplier: cement shall be from one source or mill. Mixture and color shall be approved the Engineer.
- I. Normal Weight, Coarse & Fine Aggregates: Shall conform to VDOT Sec. 202 and 203 and ASTM C 33, and as herein specified. Provide aggregates from a single source for exposed concrete.
- J. Local aggregates not complying with ASTM C 33 but which have shown by special test or actual service to produce concrete of adequate strength and durability may be used when acceptable to the Engineer.
- K. Aggregates for exposed aggregate walks or ramps shall be river washed rounded stone conforming to VDOT Std Size No. 7 and have an orange to reddish-orange color.

2.02 RELATED MATERIALS

- A. Liquid Membrane-Forming Curing Compound: Shall conform to VDOT Section 220 with the exception that the compound shall be clear.
- B. Bonding Compound: Polyvinyl acetate or acrylic base.
- C. Epoxy Adhesive: ASTM C 881, two component material suitable for use on dry or damp

surfaces. Provide material "Type", "Grade", and "Class" to suit project requirements.

D. Anchor Bolts and other Hardware: VDOT Section 226.

2.03 PROPORTIONING AND DESIGN OF MIXES

- A.** Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method is used, employ an independent testing facility acceptable to the Engineer for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.
- B.** Submit written reports to the Engineer of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed by the Engineer.
- C.** Design mixes to provide Type A3 Concrete in accordance with the provisions of VDOT Section 217.07.
- D.** Ready mixed concrete shall conform to all requirements of VDOT section 217.09(b); and shall be mixed concrete delivered to the designated point ready for use. The ready-mix plant shall be approved prior to use and in the event satisfactory quality is not produced, such approval will be withdrawn.
- E.** Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to City and as accepted by the Engineer. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Engineer before using in work.

PART 3 - EXECUTION

3.01 GENERAL

- A.** Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.
- B.** Herbicide shall be used on prepared surface before any stone or concrete placement, in accordance with VDOT Section 244.02.

3.02 FORMS

- A.** Forms shall be straight, free from warp and of sufficient strength to resist the pressure of concrete without springing and shall extend the full depth of the concrete. Forms shall be braced so that they will remain in horizontal and vertical alignment until their removal. Where practical, forms shall be placed at least 100 ft. in advance of concrete placement. Forms shall be cleaned of foreign matter and oiled before concrete is placed. Maintain formwork construction tolerances complying with ACI 347.

- B.** Design form work to be readily removable without impact, shock, or damage to cast-in-place concrete surfaces and adjacent materials.
- C.** Construct forms to sizes, shapes, lines, and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in all finished structures.
- D.** Slip form pavers shall be designed to consolidate, screed and float finish the freshly placed concrete in one complete pass of the machine and in a manner so that a minimum of hand finishing will be necessary to provide a dense and homogenous section. The paver shall be equipped to vibrate the concrete thoroughly for the full width and depth of the section.
- E.** Forms shall not be removed from freshly placed concrete until it has set for at least 12 hrs. Forms shall be removed carefully to avoid damage. Major honeycombed areas will be considered defective work and shall be removed and replaced.

3.03 JOINTS

- A.** Construction Joints: Locate and install construction joints as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to the Engineer. Joints shall be formed around all drainage structure using preformed joint filler, 1/4 inch thick.
- B.** Expansion joints: Preformed joint filler shall be placed between concrete sidewalks and any fixed structure. Where sidewalk is constructed in conjunction with adjacent curb, the expansion joints shall, if practicable, coincide.
- C.** Transverse expansion joints shall be constructed at intervals of approximately 100 feet, except for closures. Slabs shall be separated by preformed joint filler 1/2 inch thick, extending from the bottom of the slab to approximately 1/4 inch below the top of the surface.
- D.** All preformed joint filler shall be securely fastened to prevent displacement.
- E.** All preformed joint filler shall conform to VDOT Sec. 212. Substitutes which meet all the VDOT requirements may be substituted with the approval of the Engineer.

3.04 CONCRETE PLACEMENT

- A.** Pre-Placement Inspection: Before placing concrete, inspect and complete form work installation, reinforcing steel, and items to be embedded or cast-in. Moisten wood forms immediately before placing concrete where form coatings are not used.
- B.** Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete", and as herein specified.
- C.** Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.

- D.** Deposit concrete in forms in horizontal layers no deeper than 24" and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
- E.** Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.
- F.** Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6" into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.
- G.** Deposit and consolidate concrete aprons in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed. Aprons shall be placed as shown on plans: 6-in. residential; 8-in. commercial depth.
- H.** Concrete sidewalks shall conform to VDOT Specifications Section 504. Premolded 1/2-in. transverse expansion joints shall be installed at all intersections and at maximum intervals of one hundred (100) feet except for closures. Surface of walks shall be wood floated finish free of irregularities and have a medium broom finish. Concrete walks shall be (4) inches thick, except for the area, which coincides with driveway aprons, which shall match the apron thickness. The slope and joints of the sidewalk will be carried through all driveway aprons except where the sidewalk has been poured to the back of the curb. Transverse control joints shall be formed in 5 ft. sections and align with the 10 ft. curb sections.
- I.** Concrete curb cut ramps shall be placed as shown on plan. Pour special mix for exposed aggregate. Superscreed surface and treat with retarder. Allow to set up, then pressure wash surface, remove cream and expose aggregate. Caution should be used to prevent spatter during wash process.
- J.** Concrete Curbs & Gutter may be slipformed or formed in place. Curb and gutter shall be constructed in uniform lengths of approximately 10 ft. as necessary to form closures. Expansion joints shall be formed at intervals of approximately 100 ft. using 5/8 in. preformed bituminous fiber joint filler. No section shall be less than 6 ft. Expansion joints in the curb and sidewalk shall match.
- K.** Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.
- L.** Bring surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb surfaces prior to beginning finishing operations.
- M.** Maintain reinforcing in proper position during concrete placement operations.

3.05 FINAL ACCEPTANCE

- A.** At the time of final inspection, any cracks or damage to concrete items will be addressed in the following manner before the concrete work will be accepted:
- 1.** Storm drainage structures: Collars will be replaced in their entirety.
 - 2.** Curb & gutter - curbing: Replacement will be in ten (10) foot sections, joint to joint.
 - 3.** Sidewalks: The entire section will be replaced.
 - 4.** Curb cut ramps: To be totally replaced.
 - 5.** Drive way aprons: Entire apron to be replaced from curb line to property line.
- B.** Patching of concrete may be accepted for the above referenced items at the discretion of the Engineer.

END OF SECTION 2.8

SECTION 2.9 - LANDSCAPING

PART 1 - GENERAL

1.01 SCOPE

Shall include all labor, materials, equipment and services necessary to completely furnish, install, maintain and guarantee all seeding and seeding items in accordance with the contract documents and specifications. It is the intent of this specification that the Contractor is obligated to deliver a satisfactory stand of perennial grass before final acceptance of the work. If any or all portions of the work must be repeated to provide such, the Contractor shall do so at no additional cost to the City. A satisfactory stand of grass shall be considered a full cover over the seeded areas with grass that is alive and growing leaving no bare spots larger than one square yard, the total of all bare spots in any one area shall not exceed 10 percent of the area.

1.02 RELATED DOCUMENTS

Section 2.5 – Earthwork

1.03 QUALITY ASSURANCE

A. Installer Qualifications:

1. Engage an experienced installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment.
2. Require Installer to maintain an experienced full-time supervisor on the Project site during times that landscaping is in progress. The same supervisor shall be used throughout this project unless a substitution is approved by the Engineer or the City Forester.

B. Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 “American Standard for Nursery Stock.”

C. Topsoil Analysis: Furnish a soil analysis made by a qualified independent soil-testing agency stating percentages of organic matter, inorganic matter (silt, clay and sand), deleterious material, pH, and mineral and plant-nutrient content of topsoil.

1. Report suitability of topsoil for growth of applicable planting material. State recommended quantities of nitrogen, phosphorus and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce satisfactory topsoil.

D. Submit proof of non-availability.

E. Submit proposal for equivalent material.

1.04 SUBMITTALS

A. Plant and Material Certifications:

1. Product certificates signed by manufacturers certifying that their products comply with specified requirements.
2. Analysis for other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
3. Label data substantiating that plants, trees, shrubs, and planting materials comply with specified requirements.

B. Certification of grass seed from seed vendor for each grass-seed mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging. Certification of each seed mixture for sod, identifying sod source, including name and telephone number of supplier.

C. Maintenance instructions recommending procedures to be established by Owner for maintenance of landscaping during an entire year. Submit before expiration of required maintenance periods

1.05 JOB CONDITIONS

A. Utilities: Determine location of above grade and underground utilities and perform work in a manner that will avoid damage. Hand excavate, as required. Maintain grade stakes until removal is mutually agreed upon by parties concerned. Maintain all grade stakes until completion of project.

B. When conditions detrimental to plant or grass growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify Engineer before planting. Excavation and regrading may be required.

C. Where areas have been disturbed for storage purposes, the contractor will be required to restore the area to its original condition.

1.06 SEQUENCING AND SCHEDULING

A. Proceed with and complete landscape work as rapidly as portions of the site become available, working within seasonal limitations for each type of landscape work required.

B. Conform to normal planting seasons for each type of plant material required.

1.07 WARRANTY

A. Warrant the following living planting materials for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth, except for

defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, abnormal weather conditions unusual for warranty period, or incidents that are beyond Contractor's control.

1. Trees
 2. Shrubs
 3. Ground covers
 4. Plants
- B. Remove and replace dead planting materials immediately unless required to plant in the succeeding planting season.
- C. Replace planting materials that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
- D. A limit of one replacement of each plant material will be required, except for losses or replacement due to failure to comply with requirements.

1.08 TREES AND SHRUB MAINTENANCE

Maintain trees and shrubs by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings. Maintain trees and shrubs for the following period:

Maintenance Period: 12 months following Substantial Completion.

1.09 GROUND COVER AND PLANT MAINTENANCE

Maintain ground cover and plants by watering, weeding, fertilizing and other operations as required to establish health, viable plantings for the following period of 6 months following Substantial Completion.

1.10 LAWN MAINTENANCE

- A. Begin maintenance of lawns immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
1. Seeded Lawns: 60 days after date of Substantial Completion.
 2. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established at that time, continue maintenance during next planting season.
 3. Sodded Lawns: 30 days after date of Substantial Completion.
- B. Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming,

- replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.
- C. Watering: Provide and maintain temporary piping, hoses, and lawn watering equipment to convey water from sources and to keep lawns uniformly moist to a depth of 4 inches (100 mm). Water lawn at the minimum rate of 1-inch (25 mm) per week.
 - D. Mow lawns as soon as there is enough top growth to cut with mower set at specified height for principal species planted. Repeat mowing as required to maintain specified height without cutting more than 40 percent of the grass height. Remove no more than 40 percent of grass leaf growth in initial or subsequent mowing. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet.
 - E. Postfertilization: Apply fertilizer to lawn after first mowing and when grass is dry. Use fertilizer that will provide actual nitrogen of at least 1 lb. per 1000 sq. ft. (05.kg per 100 sq. m) of lawn area.

PART 2 – PRODUCTS

2.01 TREE AND SHRUB MATERIAL

- A. General: Furnish nursery-grown trees and shrubs conforming to ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well shaped, fully branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions and disfigurement.
- B. Grade: Provide trees and shrubs of sizes and grades conforming to ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.
- C. Label each tree and shrub with securely attached, waterproof tag bearing legible designation of botanical and common name.
- D. Label at least 1 tree and 1 shrub of each variety and caliper with a securely attached, waterproof tag bearing legible designation of botanical and common name.

2.02 SHADE AND FLOWERING TREES

- A. Shade Trees: Single-stem trees (unless otherwise specified) with straight trunk, well balanced crown and intact leader, of height and caliper indicated, conforming to ANSI Z60.1 for type of trees required. Branching Height: ½ of tree height.
- B. Small Trees: Small upright or spreading type, branched or pruned naturally according to species and type, and with relationship of caliper, height and branching recommended by ANSI Z60.1, and stem form as typical for species.
- C. Provide balled and burlapped trees. Container grown trees will be acceptable in lieu of balled and burlapped trees subject to meeting ANSI Z60.1 limitations for container stock.

2.03 DECIDUOUS SHRUBS

- A. Form and Size: Deciduous shrubs with not less than the minimum number of canes required by and measured according to ANSI Z60.1 for type, shape and height of shrub.
- B. Provide balled and burlapped deciduous shrubs. Container grown deciduous shrubs will be acceptable in lieu of balled and burlapped deciduous shrubs subject to meeting ANSI Z60.1 limitations for container stock.

2.04 CONIFEROUS EVERGREENS

- A. Form and Size: Normal quality, well balanced, coniferous evergreens, of type, height, spread, and shape required, conforming to ANSI Z60.1.
- B. Provide balled and burlapped coniferous evergreens. Container grown coniferous evergreens will be acceptable in lieu of balled and burlapped coniferous evergreens subject to meeting ANSI Z60.1 limitations for container stock.

2.05 BROADLEAF EVERGREENS

- A. Form and Size: Normal quality, well balanced, broadleaf evergreens, of type, height, spread and shape required, conforming to ANSI Z60.1.
- B. Provide balled and burlapped broadleaf evergreens. Container grown broadleaf evergreens will be acceptable in lieu of balled and burlapped broadleaf evergreens subject to meeting ANSI Z60.1 limitations for container stock.

2.06 GROUND COVERS AND PLANTS

Provide ground covers and plants established and well rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for pot size indicated.

2.07 GRASS MATERIALS

Grass Seed: Fresh, clean, dry, new-crop seed complying with the Association of Official Seed Analysts' "Rules for Testing Seeds" for purity and germination tolerances. Provide seed of grass species and varieties, proportions by weight and minimum percentages of purity, germination, and maximum percentage of weed seed as indicated.

2.08 TOPSOIL

- A. Topsoil shall be a natural, fertile, friable soil, obtained from naturally well drained areas. It shall not be excessively acid or alkaline, nor contain substances that may be harmful to plant growth. Topsoil shall be without admixture of subsoil and shall be cleaned and reasonably free from clay, lumps, stones, roots or similar substances, two inches or more in diameter, debris, or other objects which might be a hindrance to planting operations. Topsoil shall

contain at least 2 to 5 percent organic matter by weight and shall have an acidic reaction between 5.5 to 6.5 pH – inclusive. It shall have the following mechanical analysis.

- B.** Soil Texture: USDA Sandy Loam with the following particle size distribution:

Approximate Particle Distribution

Gravel	less than 10 percent
Coarse to medium sand	50 - 60 percent
Fine to very fine sand	10 - 20 percent
Silt	10 - 15 percent
Clay	15 – 20 percent

- C.** Provide one (1) particle analysis, physical and chemical test from a composite sample collected randomly throughout each source and stockpile.

- D.** Soluble salts shall not exceed 840 ppm.

2.09 **SOIL AMENDMENTS**

- A.** Lime: ASTM C 602, Class T, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent, with a minimum 99 percent passing a No. 8 (2.36 mm) sieve and a minimum 75 percent passing a No. 60 (250 micrometer) sieve. Provide lime in the form of dolomitic limestone.

- B.** Aluminum Sulfate: Commercial grade, unadulterated.

- C.** Sand: Clean, washed natural or manufactured sand, free of toxic materials.

- D.** Perlite: Horticultural perlite, soil amendment grade.

- E.** Peat Humus: Finely divided or granular texture, with a pH range of 6 to 7.5, composed of partially decomposed moss peat (other than sphagnum), peat humus, or reed-sedge peat.

- F.** Peat Humus: For acid tolerant trees and shrubs, provide moss peat, with a pH range of 3.2 to 4.5, coarse fibrous texture, medium divided sphagnum moss peat or reed-sedge peat.

- G.** Sawdust or Ground Bark Humus: Decomposed, nitrogen-treated, of uniform texture, free of chips, stones, sticks, soil, or toxic materials. When site treated, mix with at least 0.15 lb. (2.4 kg) of ammonium nitrate or 0.25 lb. (4 kg) of ammonium sulfate per cu. Ft. (cu. M) of loose sawdust or ground barks.

- H.** Manure: Well rotted, unleached stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials, free of toxic substances, stones, sticks, soil, weed seed and material harmful to plant growth.

- I.** Herbicides: EPA registered and approved, of type recommended by manufacturer.

J. Water: Potable.

2.10 FERTILIZER

- A. Organic Fertilizer:** Complete fertilizer of neutral character, consisting of fast and slow release nitrogen, phosphorous and potassium in the following compositions:
 - 1. Turf Grass: 5 lbs. per 1000 sq. ft. (2.5 kg per 100 sq. m), 18% nitrogen, 8 percent phosphorous, and 6 percent potassium, by weight (18-8-6).
 - 2. Trees: 9-5-4 analysis.
 - 3. Shrubs and Ornamental Plants: 5-30-3 analysis.
- B. Bonemeal:** Commercial, raw, finely ground; minimum of 4 percent nitrogen and 20 percent phosphoric acid.
- C. Superphosphate:** Commercial, phosphate mixture, soluble; minimum of 20 percent available phosphoric acid.
- D. Commercial Fertilizer:** Commercial grade complete fertilizer of neutral character, consisting of fast and slow release nitrogen, 50 percent derived from natural organic sources of urea-form, phosphorous and potassium in the following composition: 1 lb. per 1000 sq. ft. (0.5 kg per 100 sq. m) of actual nitrogen, 4 percent phosphorous and 2 percent potassium, by weight.
- E. Slow Release Fertilizer:** Granular fertilizer consisting of 50 percent water insoluble nitrogen, phosphorus and potassium in the following composition: 5 percent nitrogen, 10 percent phosphorous and 5 percent potassium, by weight.

2.11 MULCHES

- A. Organic Mulch:** Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
 - 1. Type: Shredded hardwood
 - 2. Type: Ground or shredded bark.
- B. Peat Mulch:** Provide peat moss in natural, shredded, or granulated form, of fine texture, with a pH range of 4 to 6 and a water absorbing capacity of 1100 to 2000 percent.
- C. Fiber Mulch:** Biodegradable dyed-wood cellulose-fiber mulch, nontoxic, free of plant growth- or germination-inhibitors, with maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- D. Asphalt Emulsion Tackifier:** Asphalt emulsion, ASTM D 977, Grade Ss-1, nontoxic and free of plant growth- or germination-inhibitors.
- E. Nonasphaltic Tackifier:** Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application, nontoxic and free of plant growth- or germination-inhibitors.

2.12 EROSION-CONTROL MATERIALS

- A. Blankets:** Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.
- B. Fiber Mesh:** Biodegradable twisted jute or spun-coir mesh, 0.92 lb. per sq. yd. (0.5 kg per sq. m) minimum, with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.

2.13 STAKES AND GUYS

- A. Upright and Guy Stakes:** Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end.
- B. Guy and Tie Wire:** ASTM A 641 (ASTM A 641M), Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch (2.7 mm) in diameter.
- C. Guy Cable:** 5-strand, 3/16-inch (4.8-mm) diameter, galvanized-steel cable, with zinc-coated turnbuckles, 3-inch- (75-mm-) long minimum, with two 3/8-inch- (10-mm-) galvanized eyebolts.
- D. Hose Chafing Guard:** Reinforced rubber or plastic hose at least 1/2 inch (13 mm) in diameter, black, cut to lengths required to protect tree trunks from damage.
- E. Flags:** Standard surveyor's plastic flagging tape, white, 6 inches (150 mm) long.

2.14 MATERIALS

- A. Antidesiccant:** Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's instructions.
- B. Trunk-Wrap Tape:** Two layers of crinkled paper cemented together with bituminous material, 4 inches (102 mm) wide minimum, with stretch factor of 33 percent.
- C. Tree Grates and Frames:** ASTM A 48, Class 35 or better, gray iron castings of shape, pattern, and size indicated.
- D. Tree Grates and Frames:** ASTM A 48, class 35 or better, gray iron castings and ASTM A 36 (ASTM A 36M) steel angle frames of shape, pattern, and size indicated.
- E. Filler Fabric:** Nonwoven polyester fabric. Minimum weight 10 oz. per square yard.
- F. Gravel:** Waterworn, hard durable gravel, washed free of loam, sand, clay, and other foreign substances and of following size range and color.

1. Size range: ¾ inch maximum, 3/8-inch minimum.
 2. Color: Readily available natural gravel color range.
- G.** Pesticides: EPA registered and approved, of type recommended by manufacturer selection and schedule of pesticides to be approved by Zoo horticulturist.
- H.** Sand: Clean coarse medium mason's sand.

PART 3 – EXECUTION

3.01 EXAMINATION

Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, and secure Architect's acceptance before the start of planting work. Make minor adjustments as may be required.

3.03 PLANTING SOIL PREPARATION

- A.** Before mixing, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth.
- B.** Mix soil amendments and fertilizers with topsoil at rates indicated. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days. A "Planting Soil Amendments Schedule" is included at the end of this Section.
- C.** For tree pit or trench backfill, mix planting soil before backfilling and stockpile at site.
- D.** For planting beds and lawns, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.
1. Mix lime with dry soil prior to mixing fertilizer. Prevent lime from contacting roots of acid-tolerant plants.
 2. Apply phosphoric acid fertilizer, other than that constituting a portion of complete fertilizers, directly to subgrade before applying planting soil and tilling.

3.04 LAWN PLANTING PREPARATION

- A.** Limit subgrade preparation to areas that will be planted in the immediate future.

- B.** Loosen subgrade to a minimum depth of 4 inches (100 mm). Remove stones larger than 1-1/2 inches (38 mm) in any dimension and sticks, roots, rubbish, and other extraneous materials.
- C.** Spread planting soil mixture to depth required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen. Place approximately ½ the thickness of planting soil mixture required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil mixture.
- D.** Preparation of Unchanged Grades: Where lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare soil as follows:
 - 1.** Remove and dispose of existing grass, vegetation, and turf. Do not turn over into soil being prepared for lawns.
 - 2.** Till surface soil to a depth of at least 6 inches (150 mm). Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches (100 mm) of soil. Trim high areas and fill in depressions. Till soil to a homogenous mixture of fine texture.
 - 3.** Clean surface soil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - 4.** Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the Owner's property.
- E.** Grade lawn and grass areas to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future. Remove trash, debris, stones larger than 1-1/2 inches (38 mm) in any dimension, and other objects that may interfere with planting or maintenance operations.
- F.** Moisten prepared lawn areas before planting when soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- G.** Restore prepared areas if eroded or otherwise disturbed after fine grading and before planting.

3.05 EXCAVATION FOR TREES AND SHRUBS

- A.** Pits and Trenches: Excavate with vertical sides and with bottom of excavation slightly raised at center to assist drainage. Loosen hard subsoil in bottom of excavation.
 - 1.** Bare-Root Trees and Shrubs: Excavate at least 12 inches (300 mm) wider than root spread and deep enough to allow setting of roots on a layer of planting soil and with collar set at same grade as in nursery, but 1 inch (25 mm) below finish grade, unless otherwise indicated. Setting Layer: Allow 3 inches (75 mm) of planting soil.

2. Balled and Burlapped Trees and Shrubs: Excavate approximately 1-1/2 times as wide as all diameter and equal to ball depth, plus the following setting layer depth: Allow 3 inches (75 mm) of planting soil.
 3. Container-Grown Trees and Shrubs: Excavate to container width and depth, plus the following setting-layer depth: Allow 3 inches (75 mm) of planting soil.
 4. Where drain tile is shown or required under planted areas, excavate to top of porous backfill over tile.
- B.** Dispose of subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.
- C.** Obstructions: Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.
- D.** Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.
- E.** Fill excavations with water and allow to percolate out, before placing setting layer and positioning trees and shrubs.

3.06 PLANTING TREES AND SHRUBS

- A.** Set balled and burlapped stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
1. Place stock on setting layer of compacted planting soil.
 2. Remove burlap and wire baskets from tops of balls and partially from sides, but do not remove from under balls. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operations.
 3. Place backfill around ball in layers, tamping lightly with foot to settle backfill and eliminates voids and air pockets. When pit is approximately ½ backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill. Backfill must not cover crown of plant. Complete operation by compacting a 6-inch saucer at outside edge of pit.
- B.** Set container-grown stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.
1. Carefully remove containers so as not to damage root balls.
 2. Place stock on setting layer of compacted planting soil.

3. Place backfill around ball in layers, tamping lightly with foot to settle backfill and eliminate voids and air pockets. When pit is approximately ½ backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill. Backfill must not cover crown of plant. Complete operation by compacting a 6-inch saucer at outside edge of pit.
- C. Set bare-root stock on cushion of planting soil. Spread roots without tangling or turning toward surface. And carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots. Remove injured roots by cutting cleanly; do not break. Set collar 1 inch (25 mm) below adjacent finish grades, unless otherwise indicated.
- D. Dish and tamp top of backfill to form a 3-inch- (75-mm-) high mound around the rim of the pit. Do not cove top of root ball with backfill.
- E. Wrap trees of 2-inch (50-mm) caliper and larger with trunk-wrap tape. Start at base of trunk and spiral cover trunk to height of first branches. Overlap wrap, exposing half the width, and securely attach without causing girdling. Inspect tree trunks for injury, improper pruning, and insect infestation take corrective measures required before wrapping.

3.07 TREE AND SHRUB PRUNING

- A. Prune, thin, and shape trees and shrubs as directed by Architect.
- B. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed by Architect, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are size after pruning.

3.08 TREE SHRUB GUYING AND STAKING

- A. Upright Staking and Tying: Stake trees of 2-through 5-inch (50- through 125-mm) caliper. Stake trees of less than 2-inch (50-mm) caliper only as required to prevent wind tip-out. Use a minimum of 2 stakes of length required to penetrate at least 18 inches (450 mm) below bottom of backfilled excavation and to extend at least 72 inches (1800 mm) above grade. Set vertical stakes and space to avoid penetrating balls or root masses. Support trees with 2 strands of tie wire encased in hose sections at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.
- B. Guying and Staking: Guy and stake trees exceeding 14 feet (4.2 m) and more than 3-inch (75-mm) caliper unless otherwise indicated. Securely attach no fewer than 3 guys to stakes 30 inches (760 mm) long, driven to grade. Attach flags to each guy wire, 30 inches (760 mm) above finish grade.
- C. Ground Cover and Plant Bed Preparation

1. Loosen subgrade of planting bed areas to a minimum depth of 6 inches (150 mm). Remove stones larger than 1-1/2 inches (38 mm) in any dimension and sticks, roots, rubbish, and other extraneous materials.
2. Spread planting soil mixture to depth required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Place approximately 1/2 the thickness of planting soil mixture required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil mixture.

3.09 MULCHING

- A. Mulch backfilled surfaces of pits, trenches, planted areas, and other areas indicated.
- B. Organic Mulch: Apply the following average thickness of organic mulch and finish level with adjacent finish grades. Do not place mulch against trunks or stems. Thickness: 2 inches (50 mm).

3.10 SEEDING NEW LAWNS

- A. Sow seed with a spreader or a seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h). Evenly distribute seed by sowing equal quantities in 2 directions at right angles to each other. Do not use wet seed that is moldy or otherwise damaged in transit or storage.
- B. Sow seed at the following rates:
 1. Seeding Rate: 2 lb. per 1000 sq. ft. (1 kg per 100-sq. m).
 2. Seeding Rate: 3 to 4 lb. per 1000 sq. ft. (1.5 to 2 kg per 100-sq. m).
 3. Seeding Rate: 5 to 8 lb. per 1000 sq. ft. (2.5 to 4 kg per 100-sq. m).
- C. Rake seed lightly into top 1/8 inch (3 mm) of topsoil, roll lightly, and water with fine spray.
- D. Protect seeded slopes exceeding 1:4 against erosion with erosion-control blankets installed and stapled according to manufacturer's recommendations.
- E. Protect seeded slopes exceeding 1:6 against erosion with jute or coir-fiber erosion-control mesh installed and stapled according to manufacturer's recommendations.
- F. Protect seeded areas with slopes less than 1:6 against erosion by spreading straw mulch after completion of seeding operations. Spread uniformly at a minimum rate of 2 tons per acre (45 kg per 100 sq. m) to form a continuous blanket 1-1/2 inches (38 mm) loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
 1. Anchor straw mulch by crimping into topsoil by suitable mechanical equipment.
 2. Anchor straw mulch by spraying with asphalt-emulsion tackifier at the rate of 10 to 13 gal. Per 1000 sq. ft. (41 to 53 L per 100 sq. m). Take precautions to prevent damage or staining of structures or other plantings adjacent to mulched areas. Immediately clean damaged or stained areas.

- G. Protect seeded areas against hot, dry weather or drying winds by applying peat mulch within 24 hours after completion of seeding operations. Soak and scatter uniformly to a depth of 3/16 inch (4.8 mm) thick and roll to a smooth surface.

3.11 SODDING NEW GRASS AREAS

- A. Lay sod within 24 hours of stripping. Do not lay sod if dormant or if ground is frozen.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
 - 1. Lay sod across angle of slopes exceeding 1:3.
 - 2. Anchor sod on slopes exceeding 1:6 with wood pegs spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within 2 hours of planting. During first week, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below the sod.

3.12 INSTALLATION OF MISCELLANEOUS MATERIALS

- A. Apply antidesiccant using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage. When deciduous trees or shrubs are moved in full-leaf, spray with antidesiccant at nursery before moving and again 2 weeks after planting.
- B. Tree Grates: Set grate segments flush with adjoining surfaces as shown on Drawings. Shim up from supporting substrate with soil-resistant plastic. Maintain a 3-inch- (75-mm-) minimum growth radius around base of tree; break away units of casting, if necessary, according to manufacturer's instructions.

3.13 CLEANUP AND PROTECTION

- A. During landscaping, keep pavements clean and work area in an orderly condition.
- B. Protect landscaping from damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed. Remove all plant labels after Substantial Completion.

3.14 DISPOSAL OF SURPLUS AND WASTE MATERIALS

Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off the Owner's property.

3.15 WARRANTY AND ACCEPTANCE

- A.** The Contractor shall warrant all work to be free of defects in workmanship or materials for a period of one (1) year from the date of final acceptance.
- B.** During the warranty period the City may notify the Contractor of repairs to be made except in the case of emergency (as determined by the City). Should the Contractor fail to respond and make the necessary repairs in what the City determines to be a reasonable time frame, the City reserves the right to make those repairs and the Contractor shall be responsible for the cost. Furthermore, when the City determines that emergency repairs are necessary, the City reserves the right to make the repairs without notifying the Contractor and the Contractor shall be responsible for the cost. In both cases, repairs made by the City will not void the one- (1) year warranty.
- C.** The City shall hold a “pre-final” inspection to test all valves and hydrants. The City Inspector and representatives from the Water Distribution Division shall be present for the inspection. The final inspection will not be held until all deficiencies found in the pre-final inspection have been corrected.

END OF SECTION 2.9

SECTION 2.10 – CHAIN LINK FENCE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

This work shall consist of furnishing and installing 4' high chain link fence.

1.02 QUALITY ASSURANCE

Codes and Standards: VDOT Road and Bridge Standards and City of Norfolk Standards, current editions, except as otherwise specified herein.

1.03 SUBMITTALS

A. Submit manufacturer's technical product data for the following fencing system materials and products:

1. Galvanized wire fabric, posts and rails
2. Foundation concrete

PART 2 - PRODUCTS

2.01 GALVANIZED WIRE FABRIC

Galvanized wire fabric shall conform to the requirements of VDOT Sec. 242. Top and bottom edges shall be knuckled.

2.02 POSTS AND RAILS

Line posts and terminal posts shall conform to VDOT Sec. 242, Schedule 40, in accordance with ASTM F1083. Line posts shall be 2-1/2 inches in diameter, terminal posts shall be 3 inches in diameter. Provide 2 inch Schedule 40 top rail.

2.03 FOUNDATION CONCRETE

Concrete to secure posts shall be in accordance with specifications Section 2.8 – Concrete Work, for this project.

PART 3 - EXECUTION

3.01 INSTALLATION OF FENCING

Install line, terminal posts, rails and galvanized wire fabric in accordance with VDOT Sec.507. Embedment depths and concrete depths shall be in accordance with the manufacturer's recommendations.

END OF SECTION

SECTION 2.11 - LIGHTING SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

This work shall consist of furnishing and installing electrical conduit and junction boxes for the installation of lighting by Dominion Virginia Power.

1.02 QUALITY ASSURANCE

A. Codes and Standards: Comply with VDOT Road and Bridge Specifications, VDOT Road and Bridge Standards and City of Norfolk Standards, current editions, except as otherwise specified herein.

B. CONDUIT TRENCHES MAY NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY THE CITY.

1.03 SUBMITTALS

A. Submit manufacture's technical product data for the following electrical system materials and products:

1. Polyvinylchloride (PVC) Conduit
2. Junction box JB-1C

PART 2 - PRODUCTS

2.01 PVC CONDUIT AND FITTINGS

A. PVC Conduit and Fittings shall conform to the requirements of VDOT Sec. 238.02(b).

2.02 ELECTRICAL AND SIGNAL JUNCTION BOXES

A. Electrical and signal junction boxes shall conform to VDOT Sec. 238.02(f).

PART 3 - EXECUTION

3.01 INSTALLATION OF PVC CONDUIT AND FITTINGS

A. Install conduit in accordance with VDOT Sec.238 except as modified herein.

B. Trench excavation: see Technical Specification Section 2.5.

C. Inspect conduit before installation to detect apparent defects.

- D. Backfill operations shall conform to VDOT Sec. 302, 303 and 303.04(g), unless otherwise authorized by the Engineer. All surplus materials shall be removed and the site left in a neat condition.

3.02 JUNCTION BOX INSTALLATION

- A. Install junction box on 12-inch thick bed of aggregate conforming to VDOT Std. Size No. 68, 78, or 8.
- B. Top of junction box shall match top of proposed grade of sidewalk or ground surface.
- C. All junction box installations shall conform to VDOT standard detail JB-1C.

3.02 INCIDENTAL ITEMS

- A. The Contractor shall protect all trees from direct or indirect injury. Where excavation requires cutting tree roots, the Contractor shall confine such root damage to the limits of the trench. See Sec. 5.0 of the Norfolk Arboricultural Specifications and Standards of Practice Manual for tree protection procedures and standards for excavation within the drip line of a tree on City property.
- B. The Contractor shall be required and agrees to comply with all the provisions of the Overhead High Voltage Act (Safety Flash), effective July 1, 1989 regarding equipment and placement of field areas with the capacity of 600 volts or more.
- C. The Contractor shall be responsible for properly maintaining the work site to ensure the public safety. On all sidewalk crossings, street intersections and all areas where there is a high volume of vehicular/pedestrian traffic, special precautions are to be taken. These precautions are to include proper barricades or temporary plating/planking, which are to be utilized until the surface is repaired.

END OF SECTION

SECTION 2.12 - UNIT PAVERS

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

This section includes brick or concrete pavers set on a sand setting bed.

1.02 SUBMITTALS

A. General: Submit each item in this article to the City Engineer or designated representative according to the conditions of the contract.

B. Product Data for the following:

1. Unit Pavers (Each type required for the project)
2. Sand for Setting Bed

C. Samples for verification in full size units of each type of unit paver indicated; in sets for each color, texture, and pattern specified, showing the full range of variations expected in these characteristics.

1. Provide samples with joints grouted and cured, indicating full range of colors to be expected in the completed work.

D. Qualification data for firms and persons specified in the “Quality Assurance” Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.03 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who has completed unit paver installations similar in material, design, and extent to that indicated for this project.

B. Single-source Responsibility: Obtain each color, type, and variety of unit pavers, joint materials, and setting materials from a single source with resources to provide products and materials of consistent quality in appearance and physical properties without delaying the work.

C. Mockup: Prior to installation of unit pavers, construct mockups for each form and pattern of unit pavers required to verify selections made under sample submittals and to demonstrated aesthetic effects as well as qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for final unit of Work, including same base construction special features for expansion joints and contiguous work as indicated.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Protect Unit Pavers and aggregate during storage and construction against soiling or contamination from earth and other materials.
- B. Protect asphalt cement and other bituminous materials from moisture and heat.
- C. Keep containers tightly closed and away from open flames.

1.05 PROJECT CONDITIONS

Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen sub grade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

PART 2 – PRODUCTS

- 2.01** Base materials shall consist of either concrete or aggregate. These items shall be paid for under other contract unit prices.
- 2.02** Setting bed shall be fine aggregate in accordance with ASTM C33-77.
- 2.03** Brick Pavers shall be Pathway FR Brick Pavers (4"x 8"x 2-1/4") as manufactured by Pine Hall Brick Company, Winston-Salem, North Carolina, or approved equal. Brick pavers shall meet or exceed ASTM C-936-8 and shall be rated for pedestrian use.
- 2.04** Concrete Pavers shall be as manufactured by Interlock Paving Systems, Inc., Gorla Enterprises, or Tarmac Inc. or approved equal. The concrete paver shall be a "standard" paver with thickness of 60 millimeters. Concrete pavers shall be of the "Holland" type and the color shall be Autumn Red (unless otherwise indicated to match other Colley Ave. sections.) Concrete pavers shall meet or exceed ASTM C-936-8 and shall be rated for pedestrian use.
- 2.05** Asphalt Joint Filler shall conform to VDOT Sec. 212.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Examine surfaces indicated to receive paving, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of unit pavers. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Thoroughly clean concrete or aggregate substrates to remove dust, debris, and loose particles.
- B. Proof-roll the prepared sub grade to check for unstable areas and areas requiring additional compaction. Do not proceed with installation of unit pavers until deficient sub grades have been corrected and are ready to receive subbase for unit pavers.

3.03 INSTALLATION, GENERAL

- A. Thoroughly clean base materials to remove dirt, dust, debris, and loose particles that would be damaging to the placement of unit pavers.
- B. Mix pavers from several pallets or cubes as they are placed to produce uniform blend of colors and textures.
- C. Cut Unit Pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
- D. Joint Pattern: Match field mock up or surrounding unit pavers.
- E. Paving Pattern: As indicated.
- F. Tolerances: Do not exceed 1/16-inch unit to unit offset from flush (lippage) or 1/8-inch in 24 inches and 1/4 inch in 10 feet from level, or indicated slope, for finished surface of paving.
- G. Expansion and control joints: Provide for sealant filled joints at locations and of widths indicated.

3.04 UNIT PAVER INSTALLATION

- A. Install pavers with tight abutting joints in patterns and colors as detailed on the contract drawings.
- B. Tamp pavers into the setting bed, assuring solid bedding with so pavers do not rock.
- C. Pavers shall be laid true to grade allowing for positive drainage throughout. A maximum deflection of 1/16 inch will be allowable at each paver. Pavers shall be flush with all surrounding concrete sidewalks and curb.
- D. Joints shall be filled with sand joint filler. The sand joint filler shall be swept over the paver surface to completely fill all joint voids and a vibratory plate type compactor shall be run over the surface until all joints are filled.
- E. Rigid edging shall be used at paver edges. Edging shall be installed in accordance with the manufacturers' recommendations. Edging shall not extend past the edge of the pavers or extend past the top of the pavers.

3.05 REPAIR, POINTING, CLEANING, AND PROTECTION

- A.** Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units and install in same manner as original units, with same joint treatment to eliminate evidence of replacement.
- B.** Pointing: During tooling of joints, enlarge voids or holes and completely fill with mortar or grout. Point-up joints at sealant.
- C.** Cleaning Remove excess grout from exposed paver surfaces; wash and scrub clean.
 - 1.** Remove protective coating as recommended by the manufacturer and acceptable to brick and grout manufacturer. Trap and remove coating to prevent it from clogging drains.
- D.** Provide final protection and maintain conditions in a manner acceptable to installer that ensures that unit paver work is without damage or deterioration at time of substantial completion.

END OF SECTION

SECTION 2.13 – WHEEL STOPS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Work includes installing new wheel stops in concrete or asphalt paved parking lots.

1.02 SUBMITTALS

Product Data: Submit data sheet for proposed materials.

1.03 QUALITY ASSURANCE

Codes and Standards: Comply with manufacturer's recommendations

1.04 PROJECT CONDITIONS

A. Drill anchor holes and provide epoxy adhesive for installation of anchors in concrete pavement.

PART 2 - PRODUCTS

2.01 MATERIALS

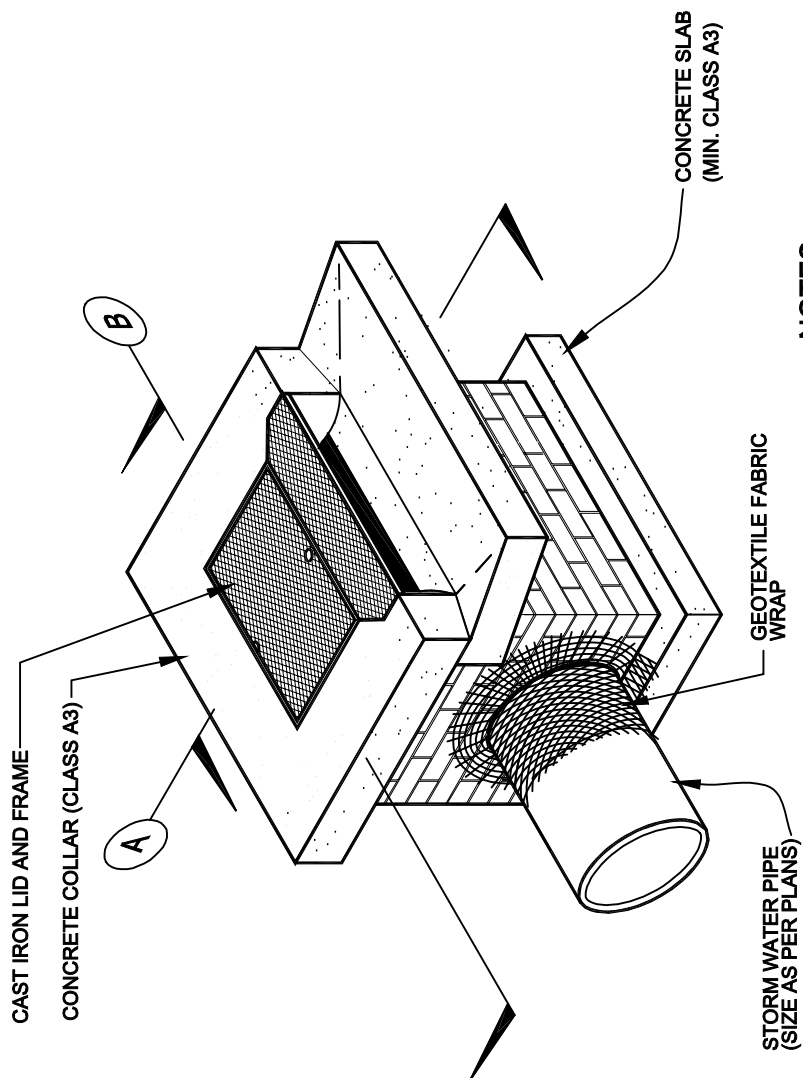
- A. 72" x 8" x 4" polygon recycled rubber wheel stops, black, made in U.S.A.
- B. Reflective stripes- blue for ADA compliant spaces, yellow for all other spaces
- C. Lag bolts with shield and washer or spiked rebar fasteners
- D. Epoxy adhesive

PART 3 - EXECUTION

3.01 GENERAL

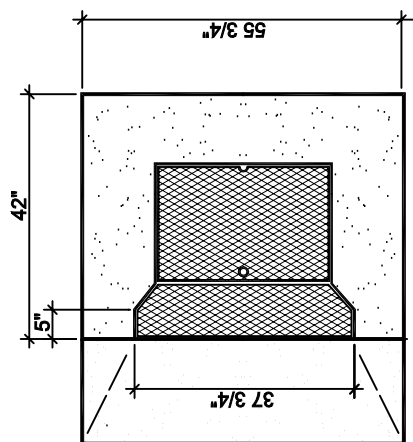
A. Comply with manufacturer's installation recommendations

END OF SECTION

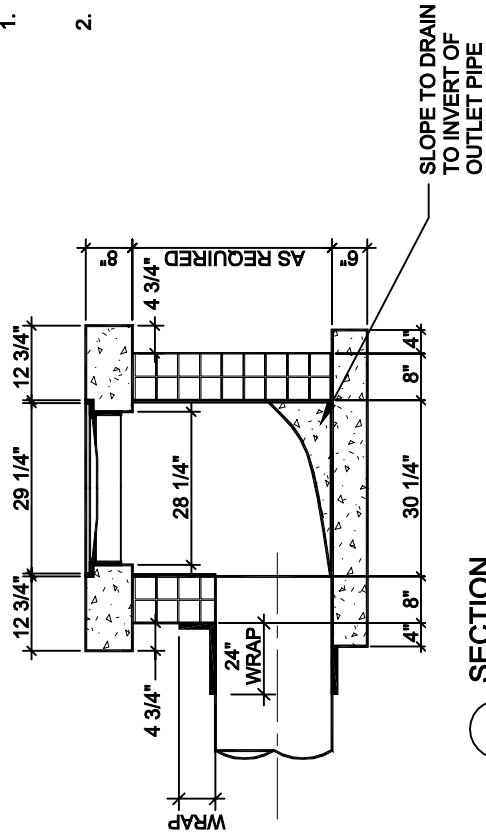


NOTES:

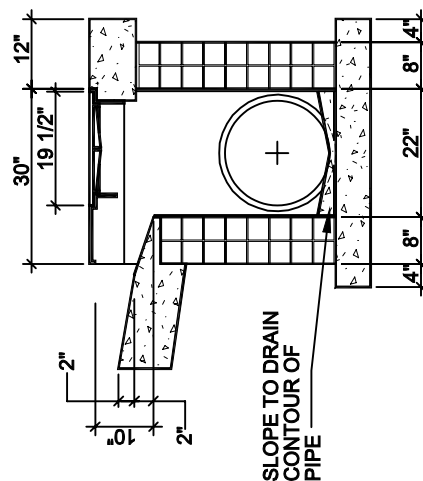
1. MORTAR PARGE BRICK INSIDE AND OUT (TYPE 6N).
2. INVERT SHAPING SHALL BE IN ACCORDANCE WITH VDOT STANDARD B-1.



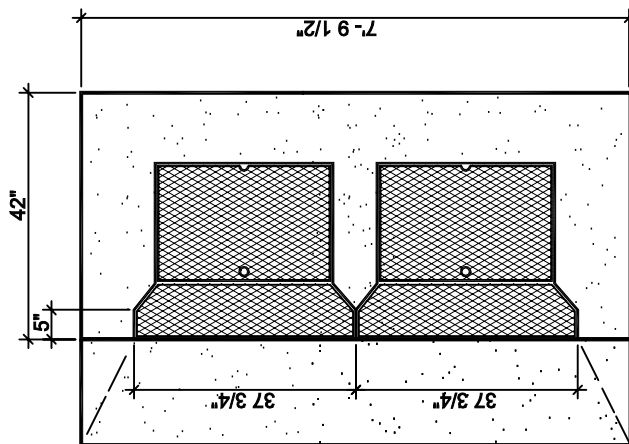
PLAN



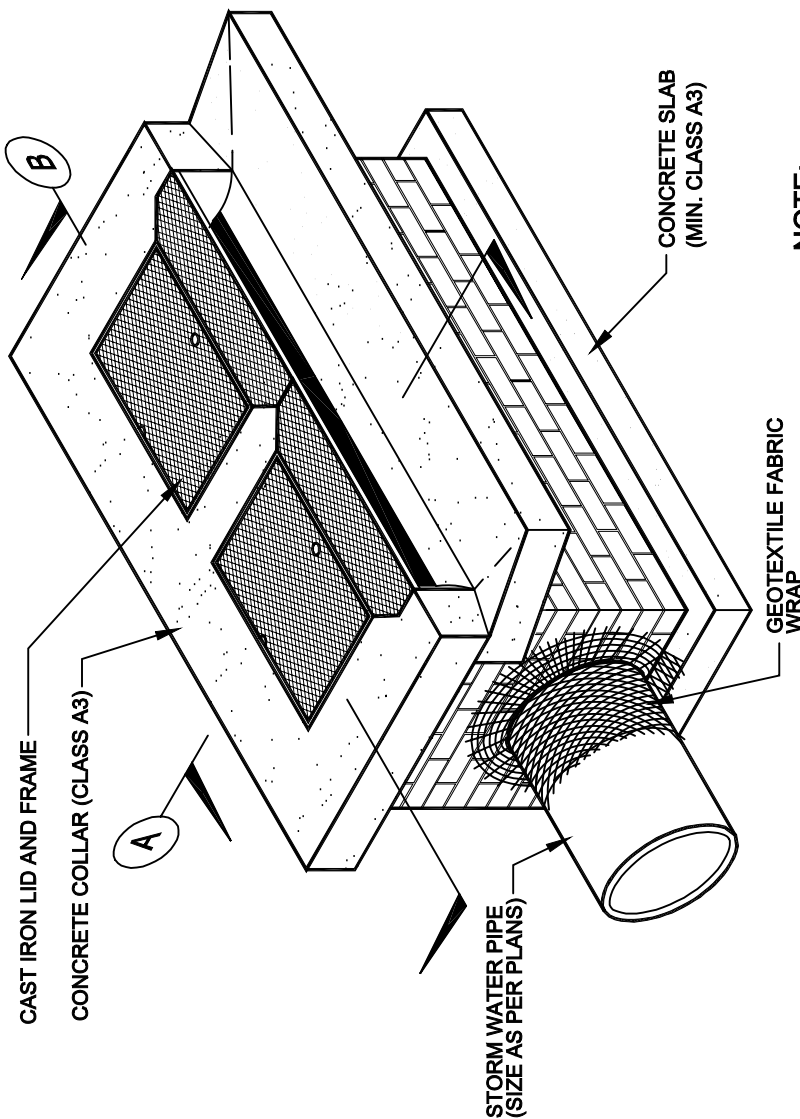
SECTION B



SECTION A

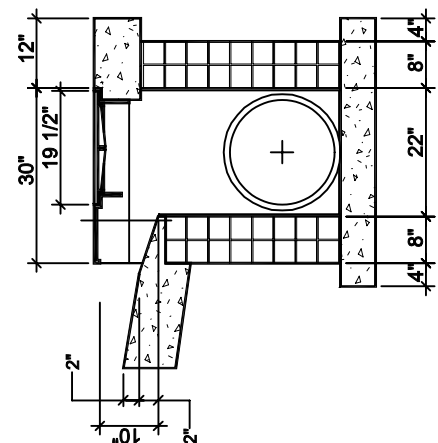


PLAN

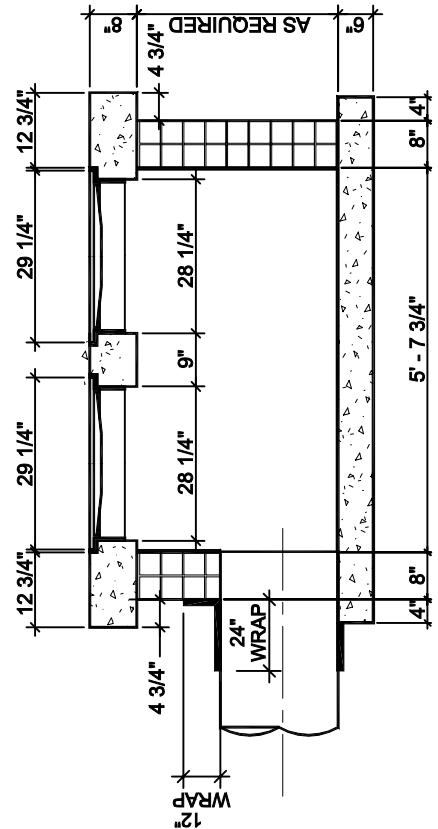


NOTE:

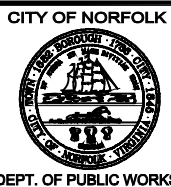
1. MORTAR PARGE BRICK INSIDE AND OUT (TYPE 6N).
2. INVERT OF STRUCTURE TO BE SHAPED IN ACCORDANCE WITH VDOT STANDARD IS-1.



SECTION A



SECTION B



DESCRIPTION

STANDARD DOUBLE CURB INLET

DESIGNATION

HS-102

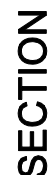
SCALE
NOT TO SCALE

EDITION
NCDS2004.9

REVISED
SEPT 2004

NOTES:

1. MORTAR PARGE BRICK INSIDE AND OUT (TYPE 6N).
2. WRAP CONNECTION BETWEEN PIPE AND STRUCTURE WITH GEOTEXTILE FABRIC.
3. INVERT OF STRUCTURE TO BE SHAPED IN ACCORDANCE WITH VDOT STANDARD IS-1.
4. CONCRETE COVER AND GRATE ARE TO BE FURNISHED AS A SINGLE UNIT.
5. GRATE BARS ARE TO PARALLEL TO DITCH FLOW.

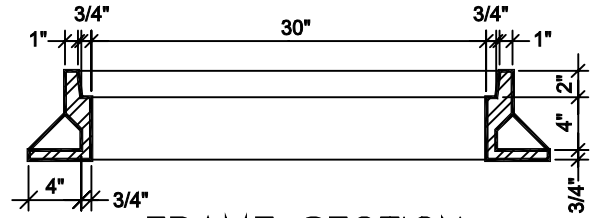


CAST IRON GRATE

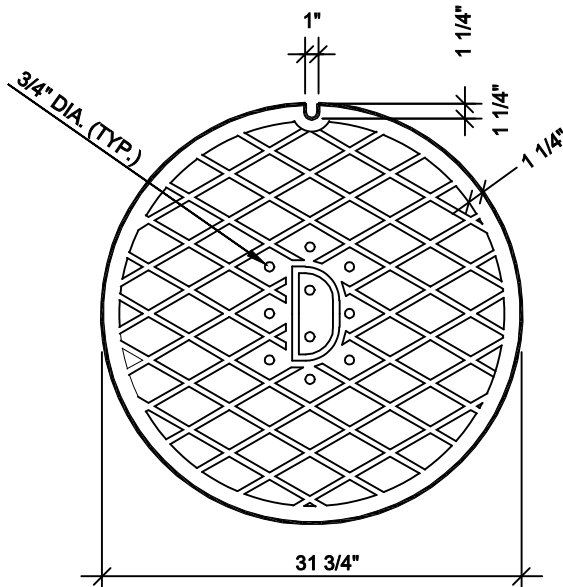
20-X37:20

NOTE

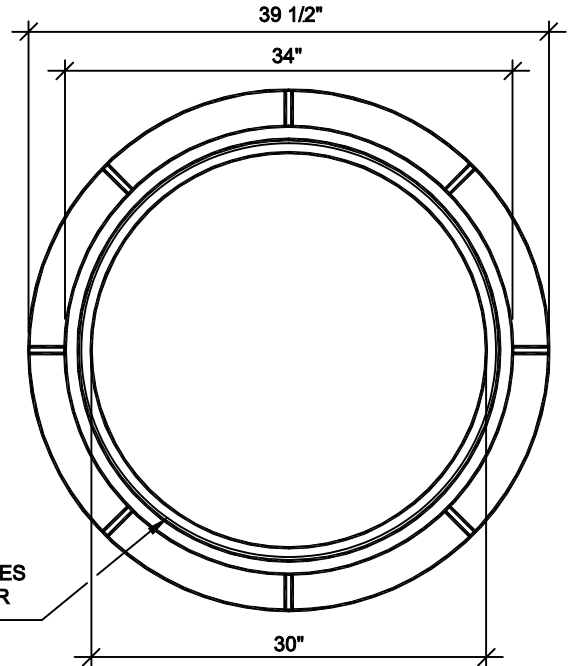
LARGE LETTER IN CENTER OF COVER MAY BE S, W, OR D, AS SPECIFIED IN ORDER. IRON SHALL BE 35,000 P.S.I. A.S.T.M. SPECS. A-48-60 WEIGHT SHALL BE PAINTED ON FRAME AND TOP.



FRAME SECTION

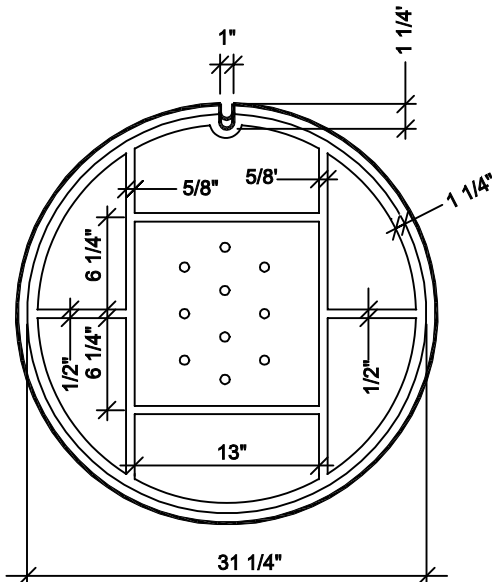


FRONT



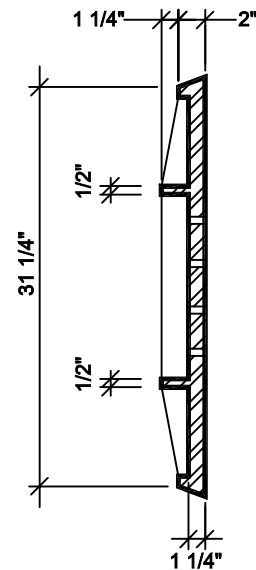
FRAME

BOTH SURFACES
MACHINED FOR
PERFECT FIT



BACK

WEIGHT
FRAME 250 LBS.
COVER 290 LBS.
TOTAL 540 LBS.



SECTION

CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

STANDARD MANHOLE COVER

DESIGNATION

HS-105

SCALE

NOT TO SCALE

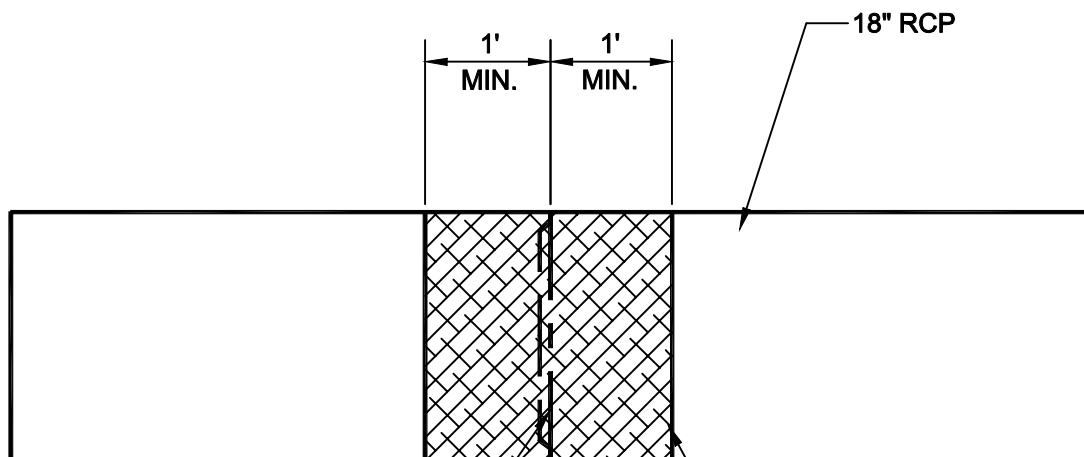
EDITION

NCDS2004.9

REVISED

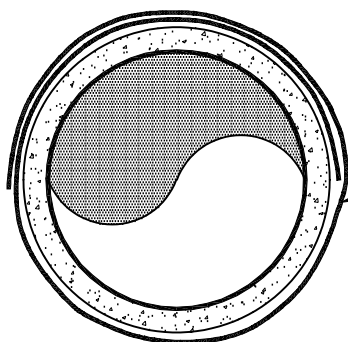
AUG. 2003

20-X34.28




RCP JOINT

* FILTER FABRIC SHALL BE CENTERED ON PIPE JOINT 1' MIN. EITHER SIDE OF JOINT



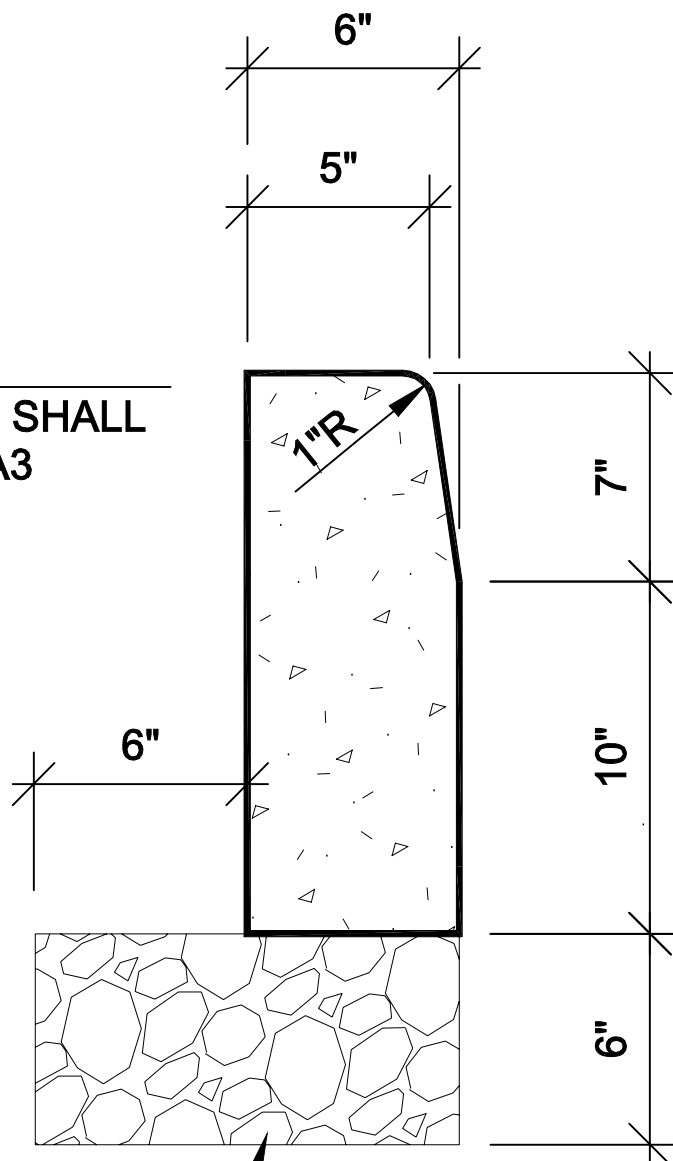
* FABRIC SHALL WRAP AROUND OUTER DIA. OF RCP 1-1/2 TIMES MIN.

* FILTER FABRIC SHALL BE NONWOVEN GEOTEXTILE CONSTRUCTION FABRIC (AMOCO #4545 OR EQUAL)

<div>CITY OF NORFOLK</div> <div></div> <div>DEPT. OF PUBLIC WORKS</div>	DESCRIPTION			DESIGNATION
	FABRIC JOINT WRAP			HS-106
SCALE	EDITION	REVISED		
NOT TO SCALE	NCDS2004.9	SEPT. 2004		

NOTE:

CONCRETE SHALL
BE CLASS A3



STONE (ROC)

CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

STANDARD 7" PARKWAY CURB

SCALE

NOT TO SCALE

EDITION

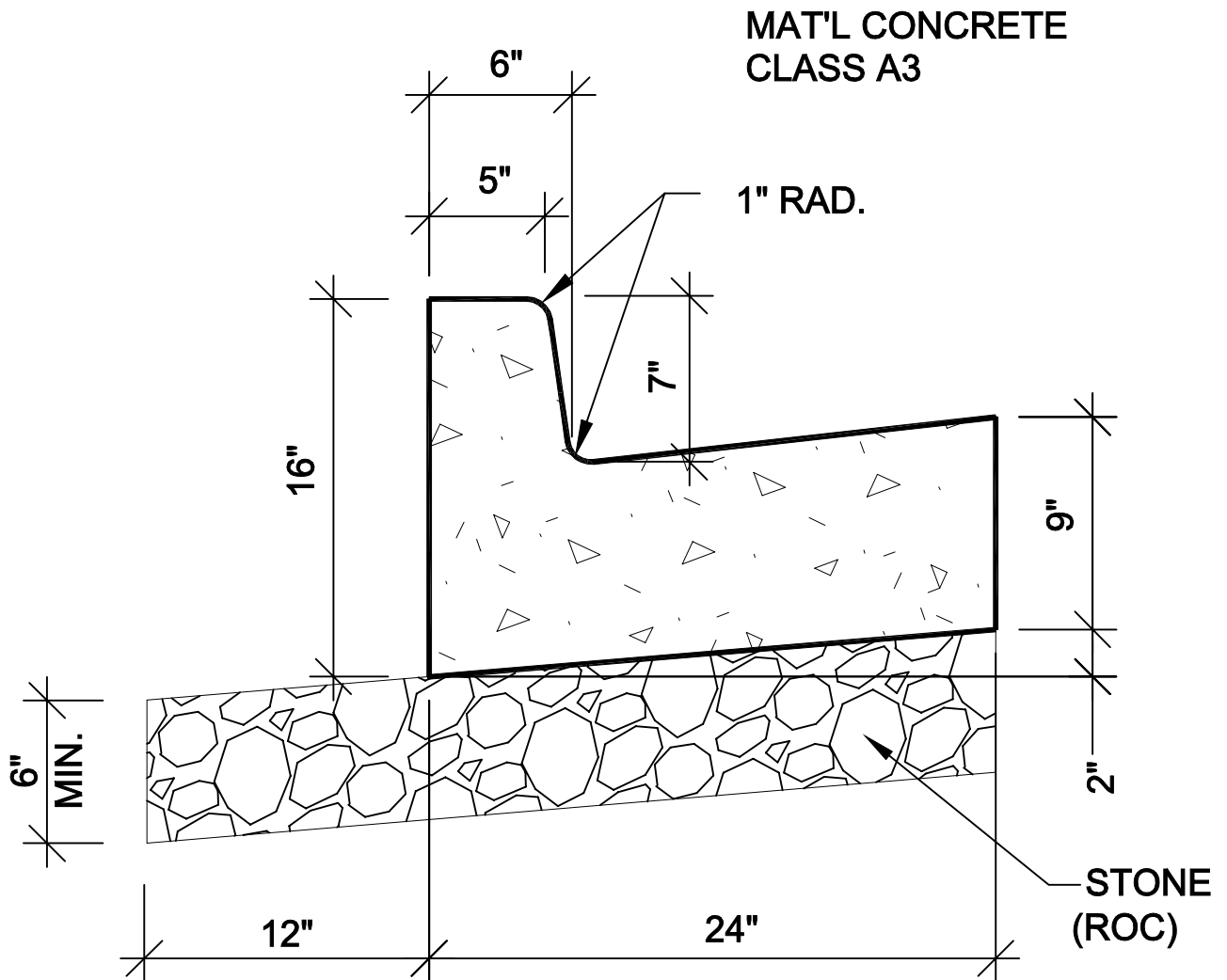
NCDS2004.9


REVISED

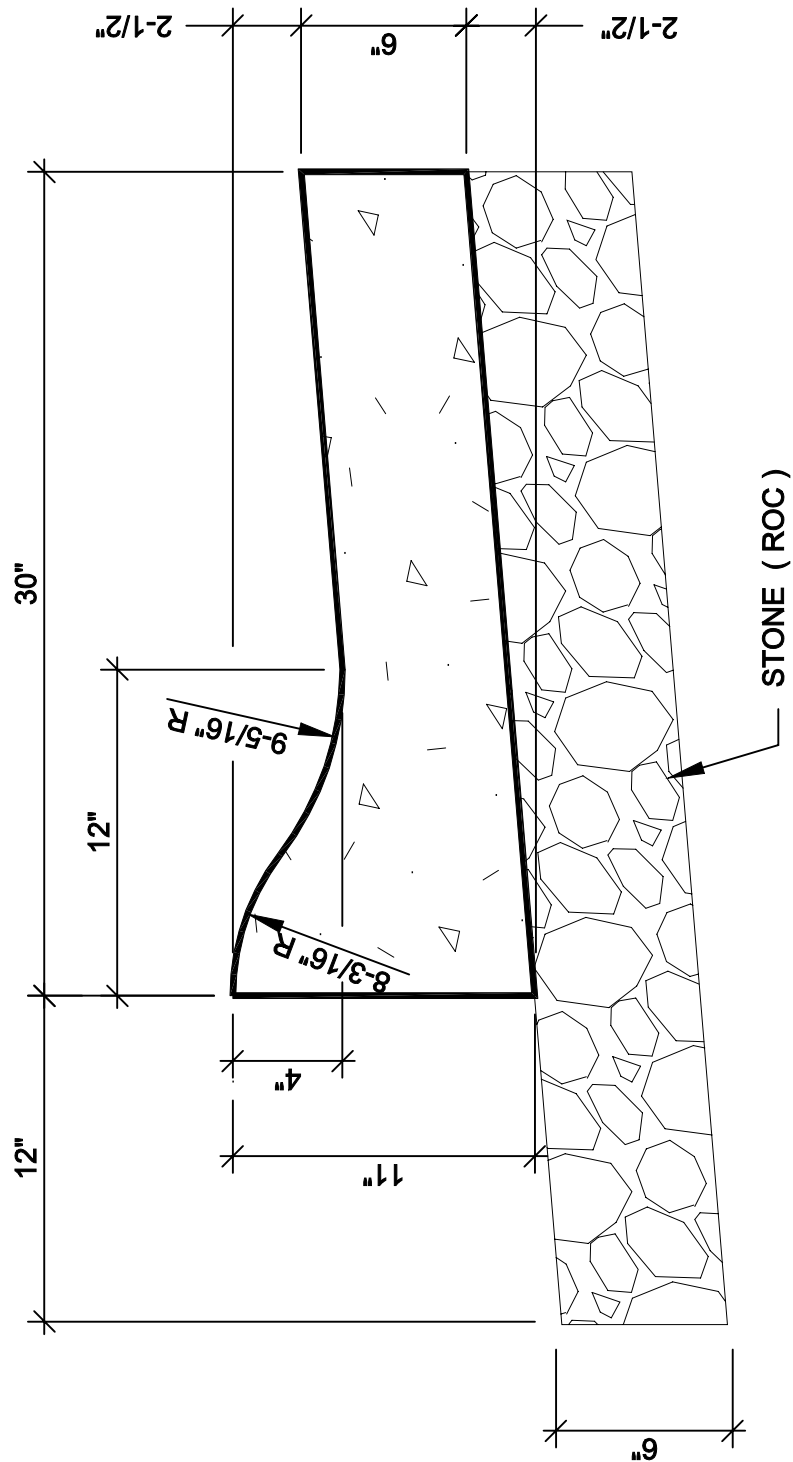
AUG. 2003

DESIGNATION

HS-201



 <p>CITY OF NORFOLK DEPT. OF PUBLIC WORKS</p>	<p>DESCRIPTION</p> <p>STANDARD 7" CURB AND GUTTER</p>			<p>DESIGNATION</p> <p>HS-202</p>
	<p>SCALE NOT TO SCALE</p>	<p>EDITION NCDS2004.9</p>	<p>REVISED AUG. 2003</p>	



CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

STANDARD ROLL-TYPE CURB AND GUTTER

SCALE

NOT TO SCALE

EDITION

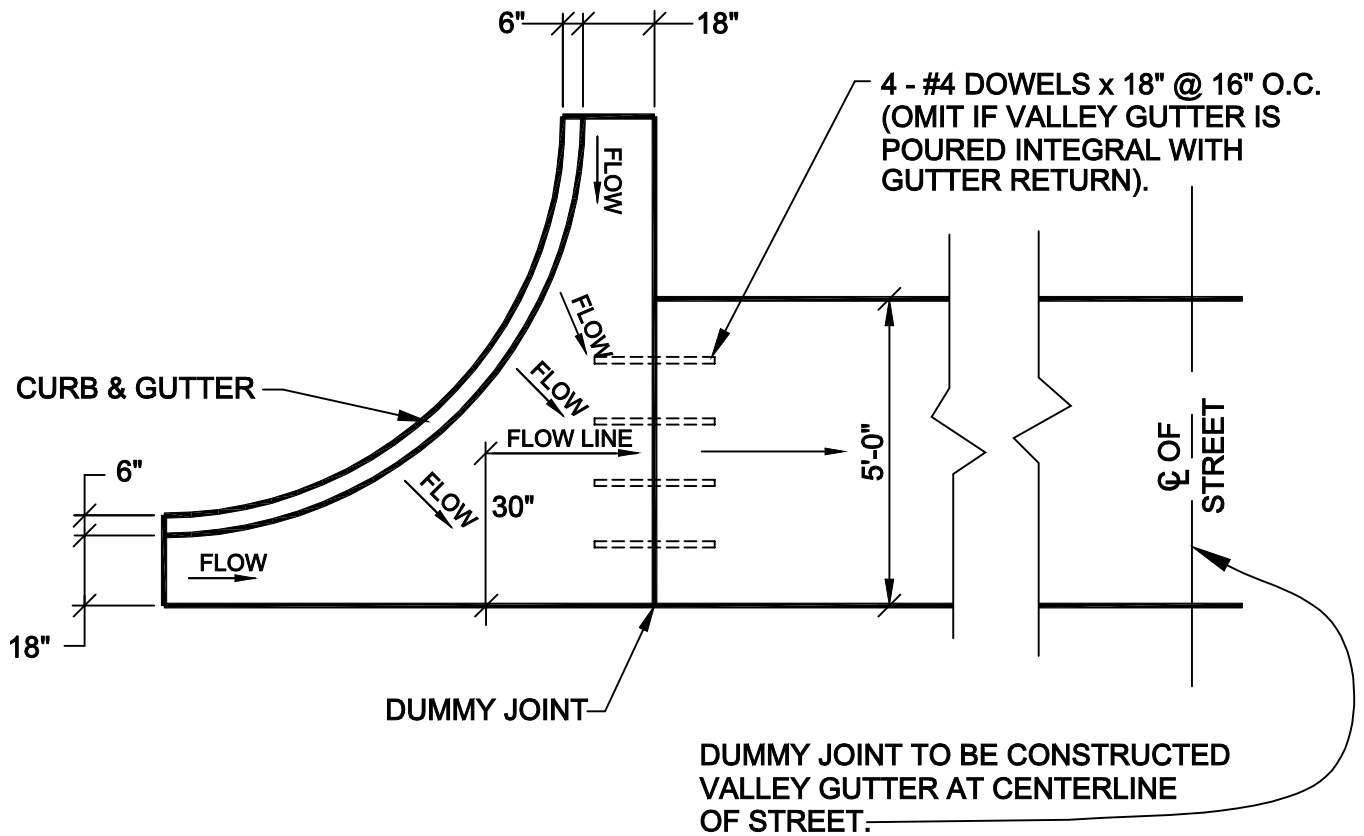
NCDS2004.9

REVISED

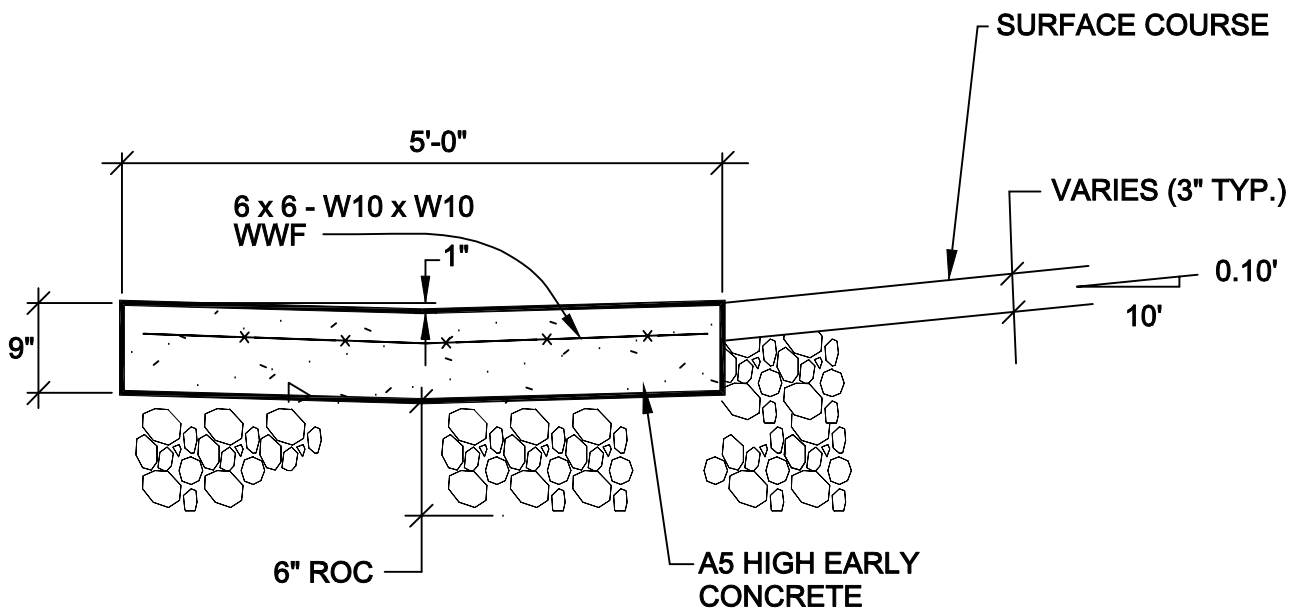
AUG. 2003

DESIGNATION


HS-204



PLAN VIEW

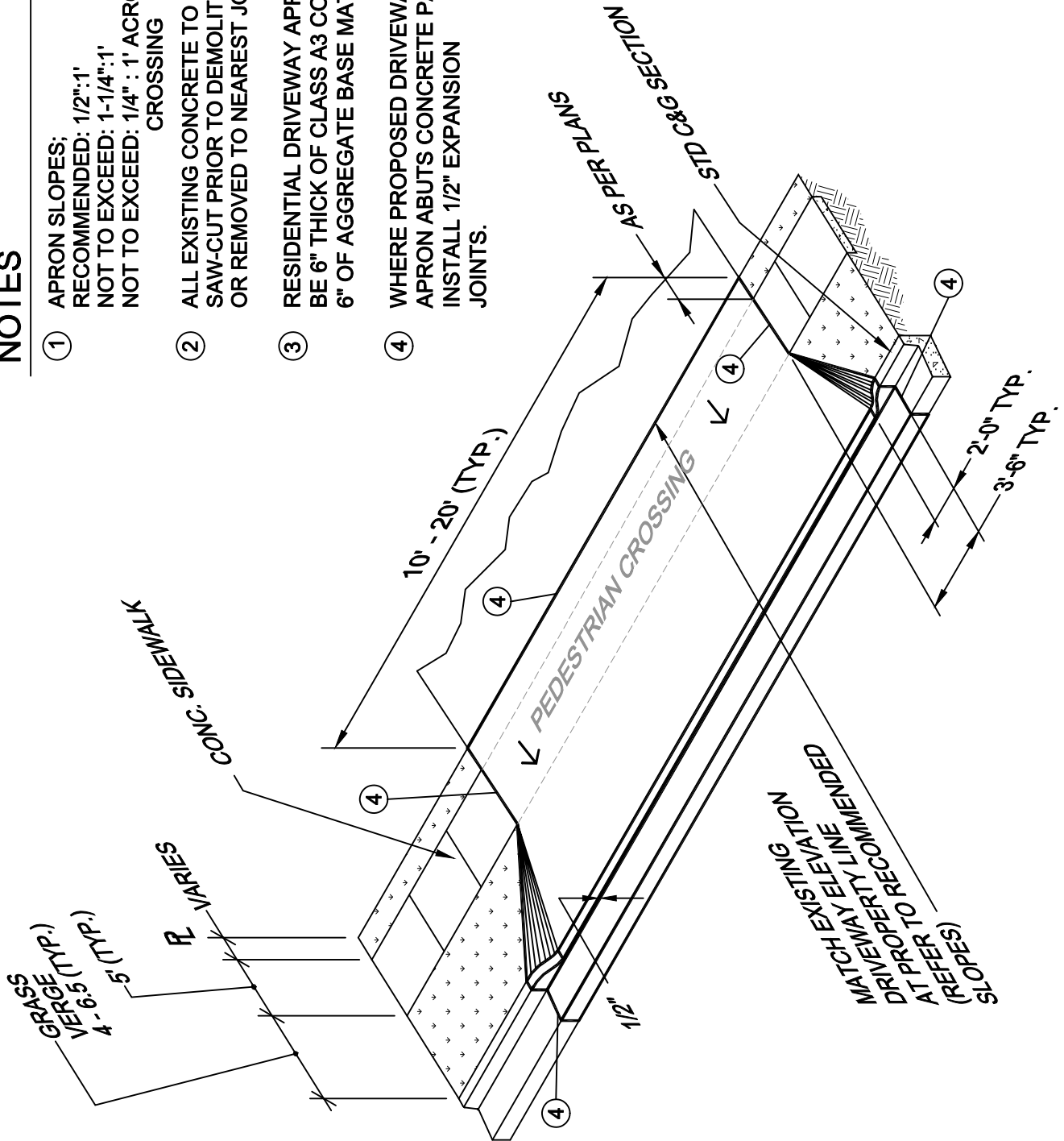


SECTION AT Q

<p>CITY OF NORFOLK</p>  <p>DEPT. OF PUBLIC WORKS</p>	<p>DESCRIPTION</p> <p>STANDARD VALLEY GUTTER</p> <p>SCALE NOT TO SCALE</p> <p>EDITION NCDS2004.9</p> <p>REVISED AUG. 2003</p>	<p>DESIGNATION</p> <p>HS-205</p>
---	--	---

NOTES

- ① APRON SLOPES;
RECOMMENDED: 1/2":1'
NOT TO EXCEED: 1-1/4":1'
NOT TO EXCEED: 1/4" : 1' ACROSS PEDESTRIAL
CROSSING
- ② ALL EXISTING CONCRETE TO BE
SAW-CUT PRIOR TO DEMOLITION
OR REMOVED TO NEAREST JOINT.
- ③ RESIDENTIAL DRIVEWAY APRONS SHALL
BE 6" THICK OF CLASS A3 CONCRETE WITH
6" OF AGGREGATE BASE MATERIAL.
- ④ WHERE PROPOSED DRIVEWAY
APRON ABUTS CONCRETE PAVEMENT
INSTALL 1/2" EXPANSION
JOINTS.



CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

STANDARD RESIDENTIAL DRIVEWAY APRON

DESIGNATION

HS-207

SCALE

NOT TO SCALE

EDITION

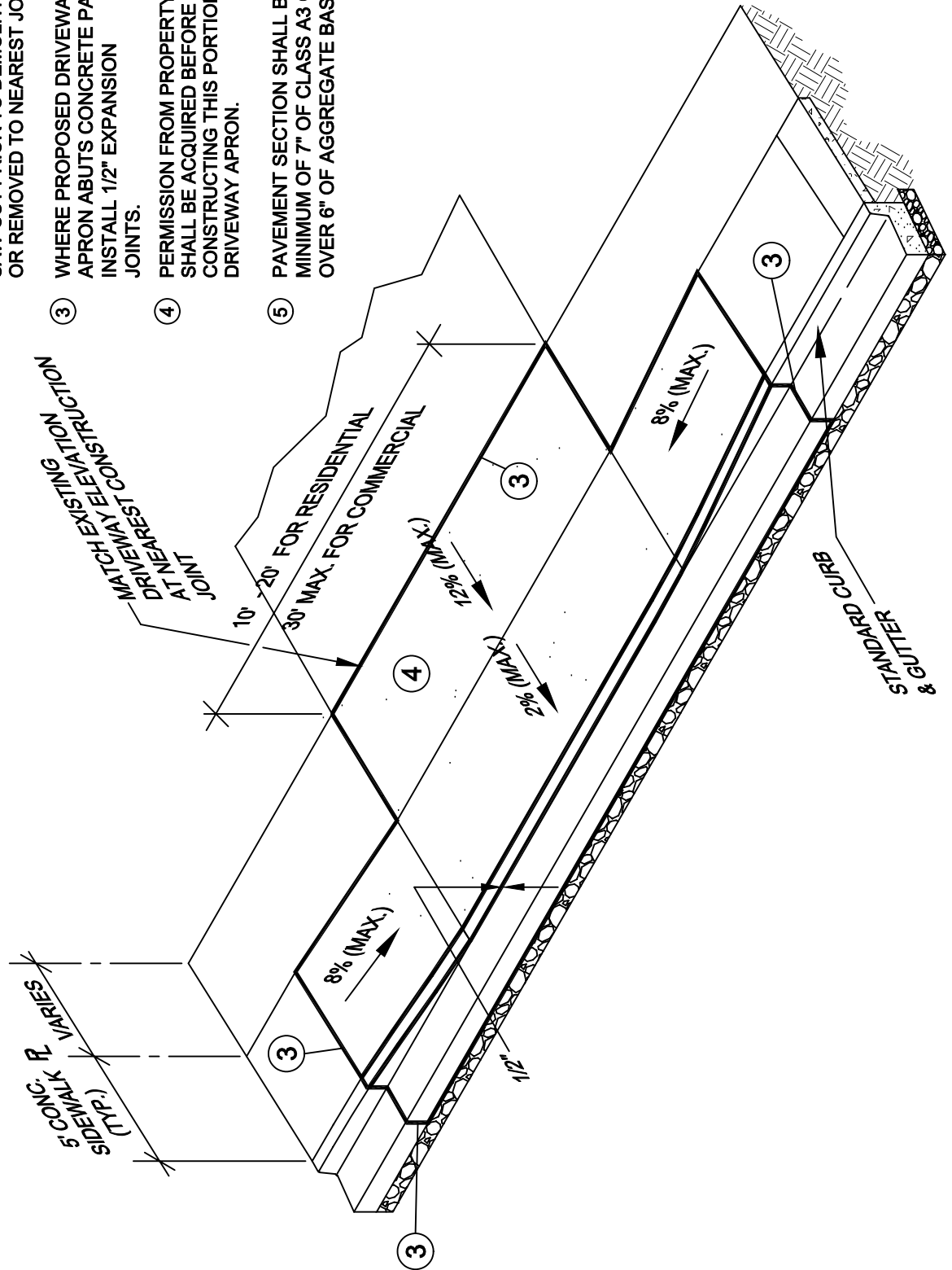
NCDS2004.9

REVISED

JAN. 2004

NOTES

- ① APRON SLOPES: 1/4" : 1' THROUGH FIRST 3' (MIN.) AND 1.5" : 1' (MAX.) BEYOND TO PROPERTY LINE.
- ② ALL EXIST CONCRETE TO BE SAW-CUT PRIOR TO DEMOLITION OR REMOVED TO NEAREST JOINT.
- ③ WHERE PROPOSED DRIVEWAY APRON ABUTS CONCRETE PAVEMENT INSTALL 1/2" EXPANSION JOINTS.
- ④ PERMISSION FROM PROPERTY OWNER SHALL BE ACQUIRED BEFORE CONSTRUCTING THIS PORTION OF THE DRIVEWAY APRON.
- ⑤ PAVEMENT SECTION SHALL BE A MINIMUM OF 7" OF CLASS A3 CONCRETE OVER 6" OF AGGREGATE BASE.



CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

ADA VARIATION OF DRIVEWAY APRON

DESIGNATION

HS-208

SCALE

NOT TO SCALE

EDITION

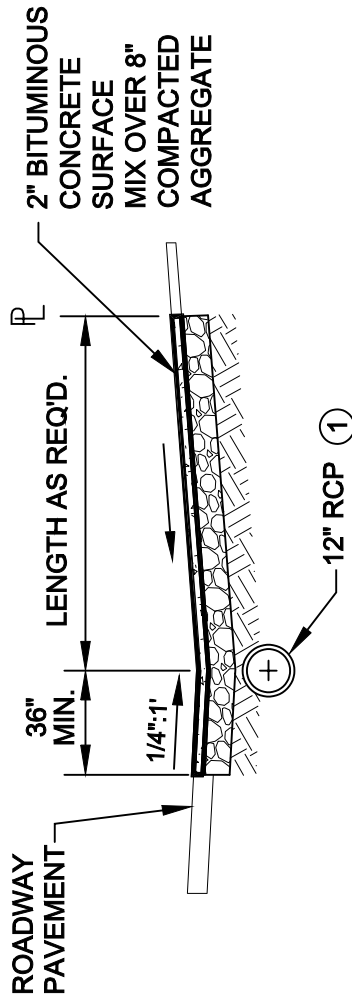
NCDS2004.9

REVISED

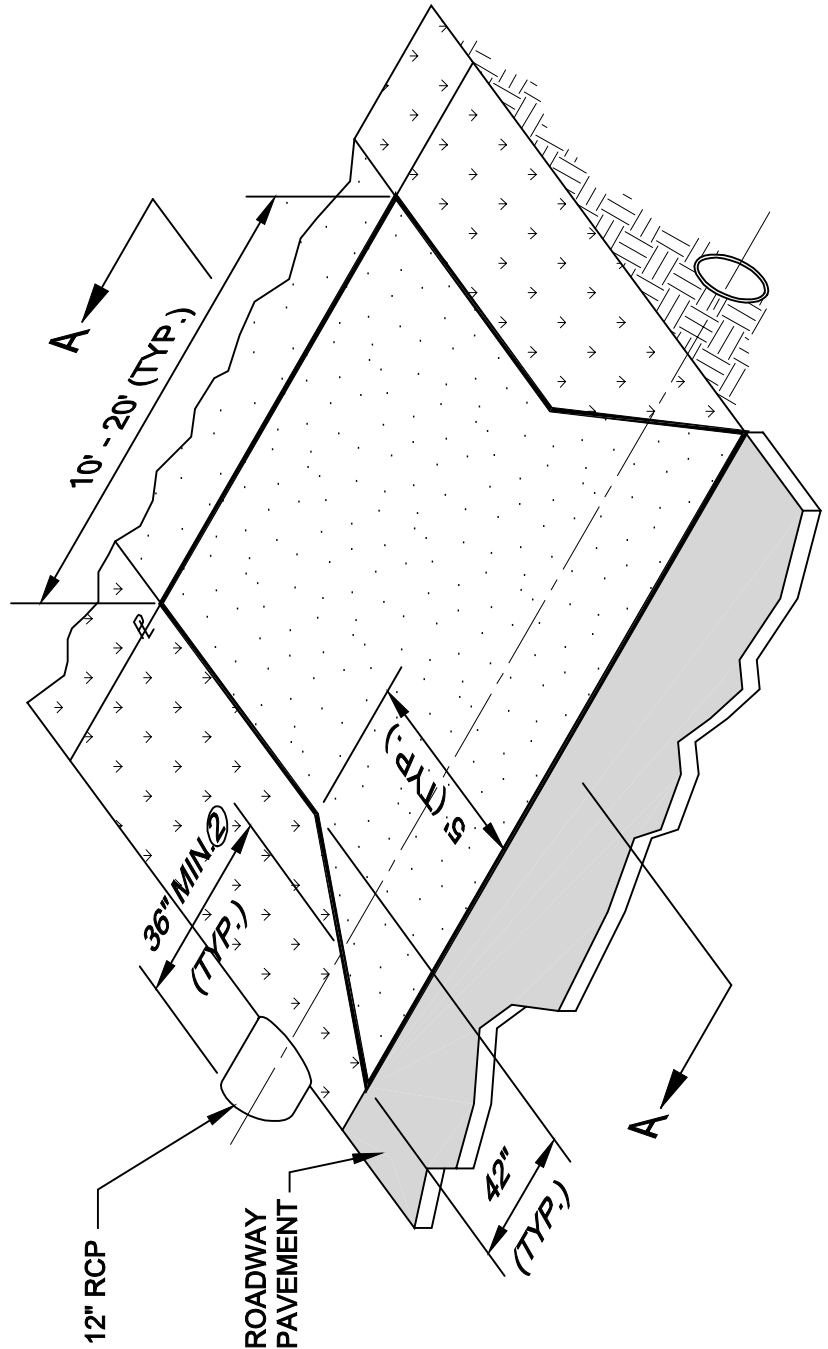
FEB. 2004

NOTES

- ① PIPE LOCATION MAY VARY WITHIN THE R.O.W. AS NECESSARY. THE PIPE SHALL BE INSTALLED TO PROVIDE AND/OR MAINTAIN POSITIVE DRAINAGE.
- ② PIPE SHALL EXTEND 3' (MIN.) BEYOND FARTHEST OUTSIDE EDGE OF ENTRANCE AT CROSSING. PROVIDE COVER AS SPECIFIED BY MANUFACTURER.



SECTION A - A



CITY OF NORFOLK



DEPT. OF PUBLIC WORKS

DESCRIPTION

**STANDARD RESIDENTIAL DRIVEWAY APRON
WITHOUT CURB AND GUTTER**

SCALE

NOT TO SCALE

EDITION

NCDS2004.9

REVISED

JUNE 2004

DESIGNATION

HS-209

CITY OF NORFOLK



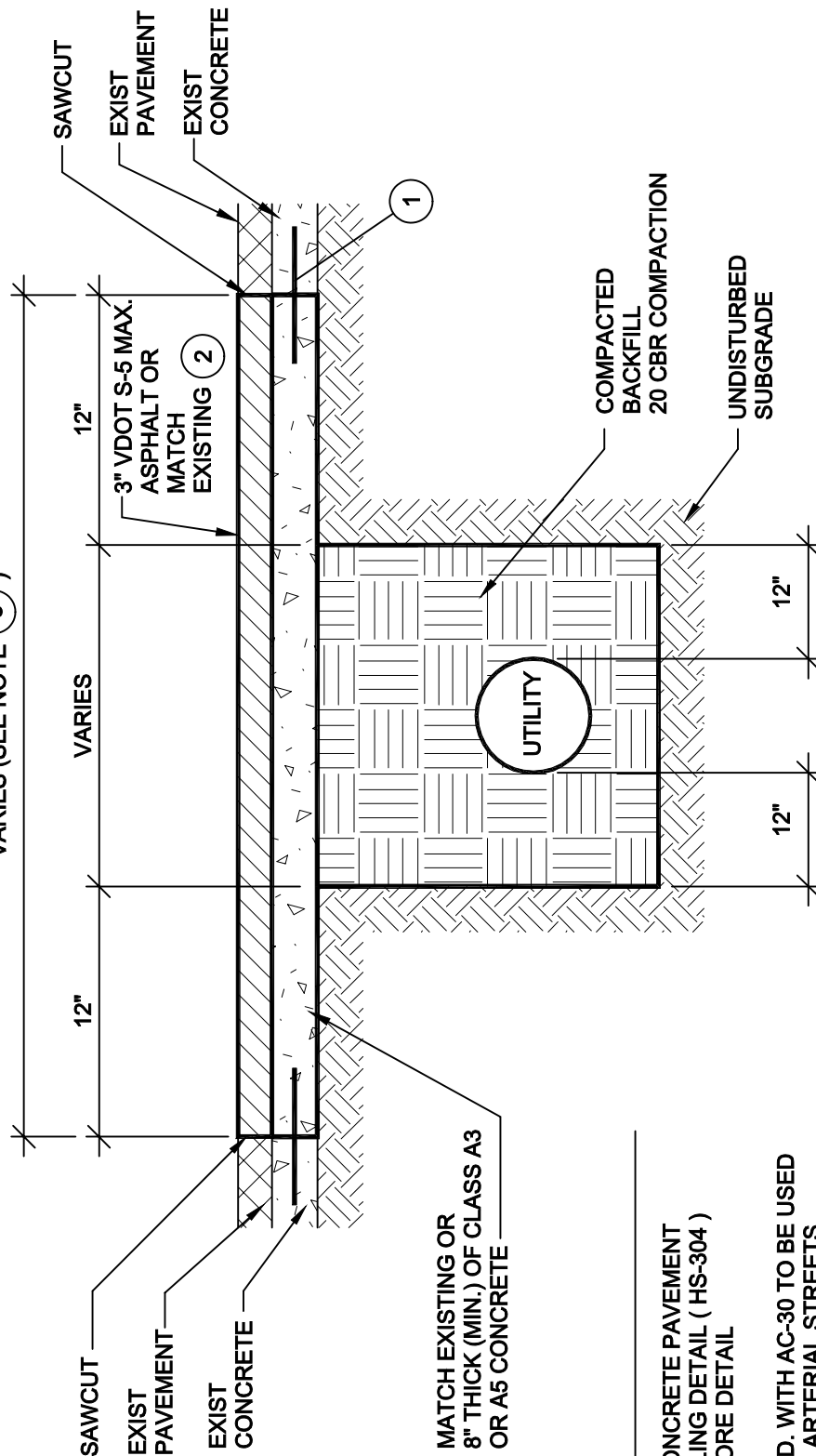
DEPT. OF PUBLIC WORKS

- REFER TO UTILITY BURIAL SPECIFICATIONS.**



DESCRIPTION STANDARD PAVEMENT REPLACEMENT ASPHALT OVER STONE			DESIGNATION HS-301
SCALE NOT TO SCALE	EDITION NCDS2004.9	REVISED FEB. 2004	

VARIES (SEE NOTE (3))



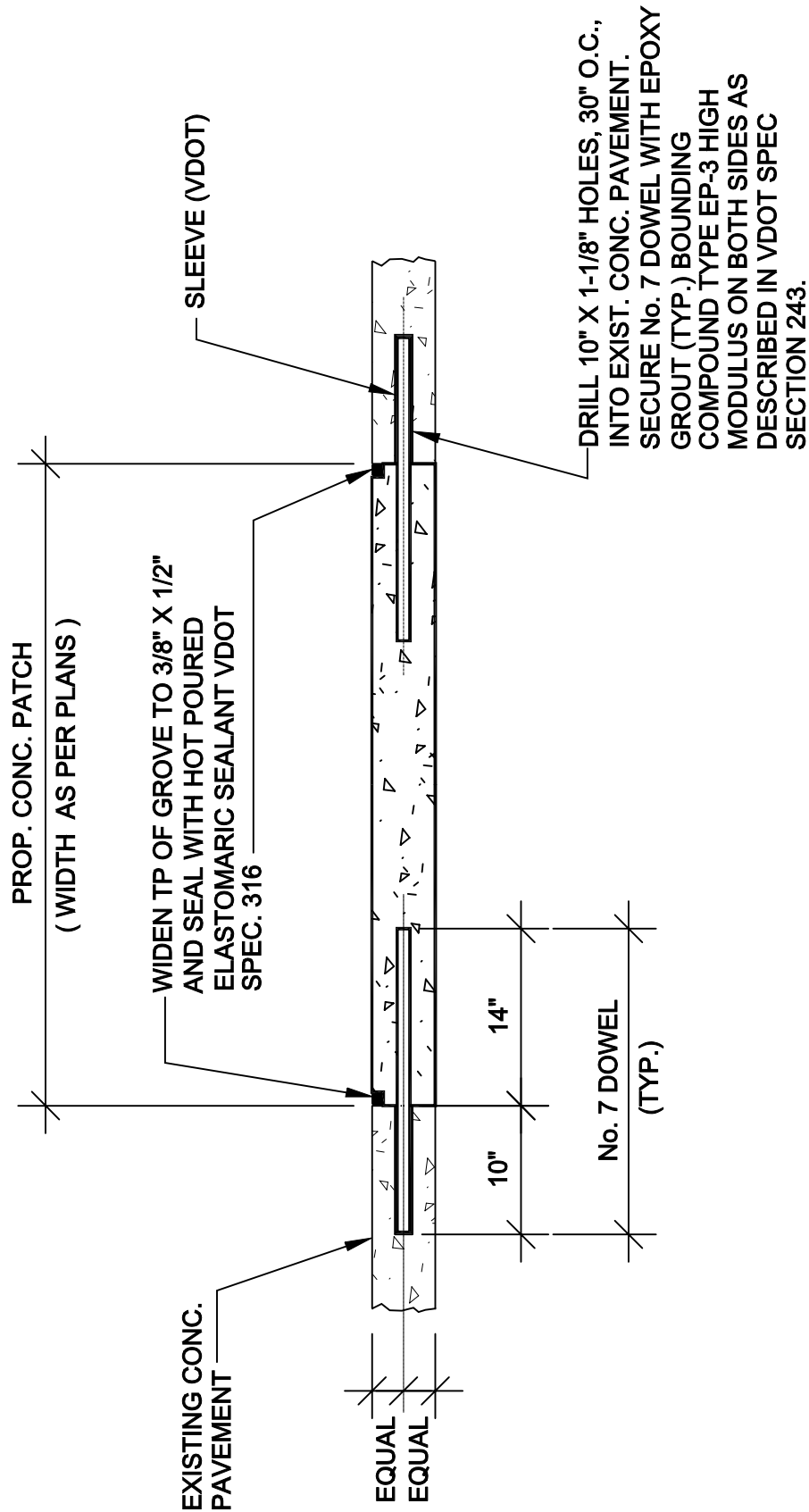
NOTES


- 1 SEE CONCRETE PAVEMENT DOWELING DETAIL (HS-304) FOR MORE DETAIL
- 2 S-5 MOD. WITH AC-30 TO BE USED ON ALL ARTERIAL STREETS.
- 3 LIMITS OF RESTORATION ARE DEFINED IN THE RIGHT-OF WAY EXCAVATION AND RESTORATION MANUAL.
- 4 CONCRETE SHALL BE CLASS A3 OR CLASS A5 EARLY STRENGTH CONCRETE.

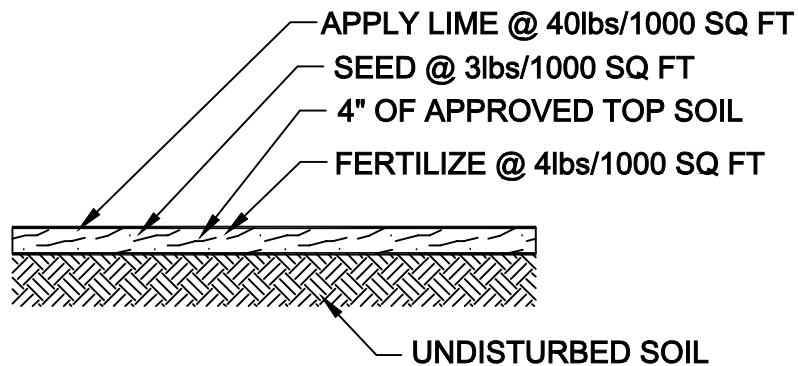
TYPE II (BITUMINOUS ASPHALT OVER CONCRETE)



- TYPE III
(CONCRETE)**




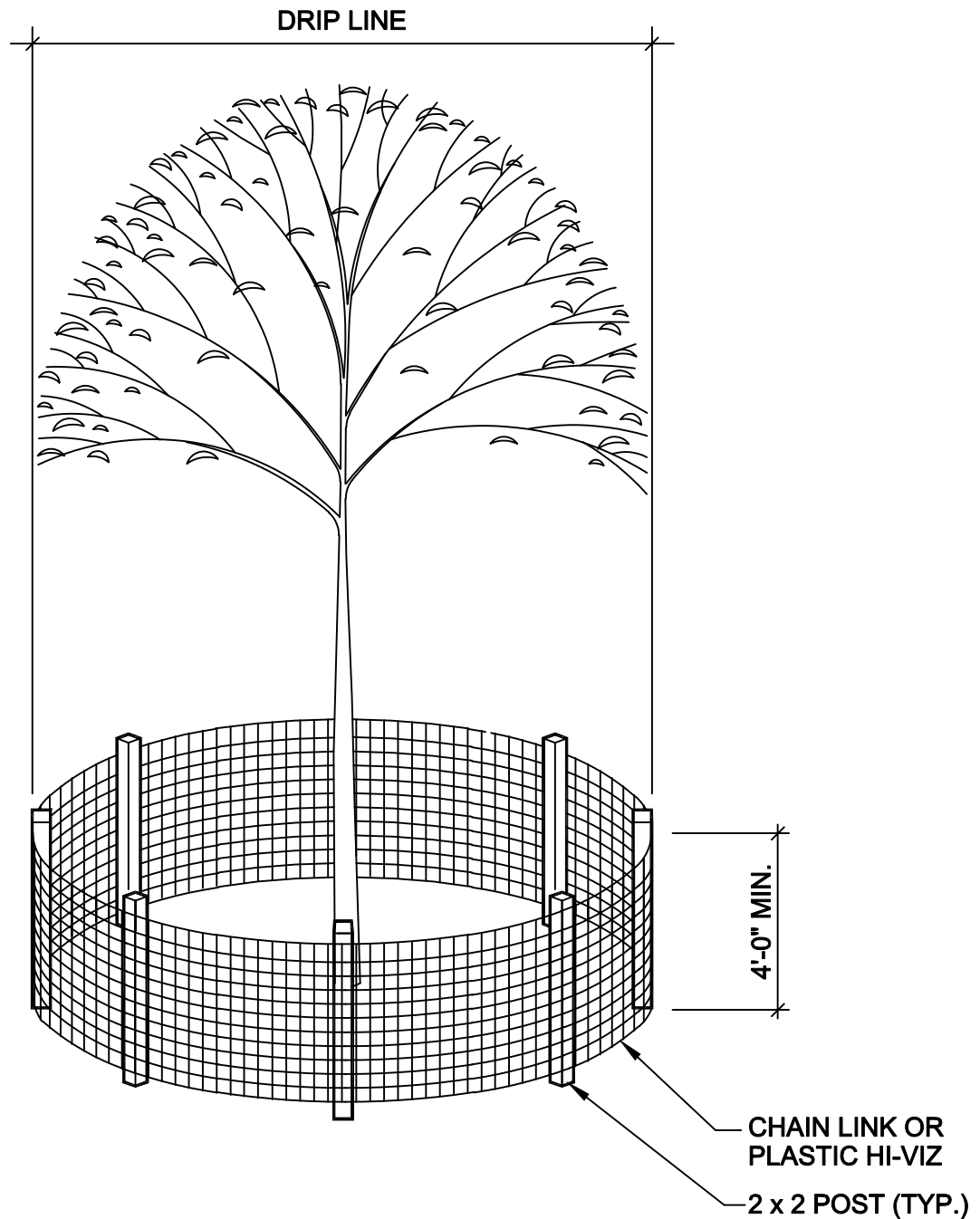
<p>CITY OF NORFOLK</p>  <p>DEPT. OF PUBLIC WORKS</p>	<p>DESCRIPTION</p> <p>CONCRETE PAVEMENT DOWELING DETAIL</p> <table border="1"> <tr> <td>SCALE</td><td>EDITION</td><td>REVISED</td></tr> <tr> <td>NOT TO SCALE</td><td>NCDS2004.9</td><td>JAN. 2004</td></tr> </table>	SCALE	EDITION	REVISED	NOT TO SCALE	NCDS2004.9	JAN. 2004	<p>DESIGNATION</p> <p>HS-304</p>
SCALE	EDITION	REVISED						
NOT TO SCALE	NCDS2004.9	JAN. 2004						




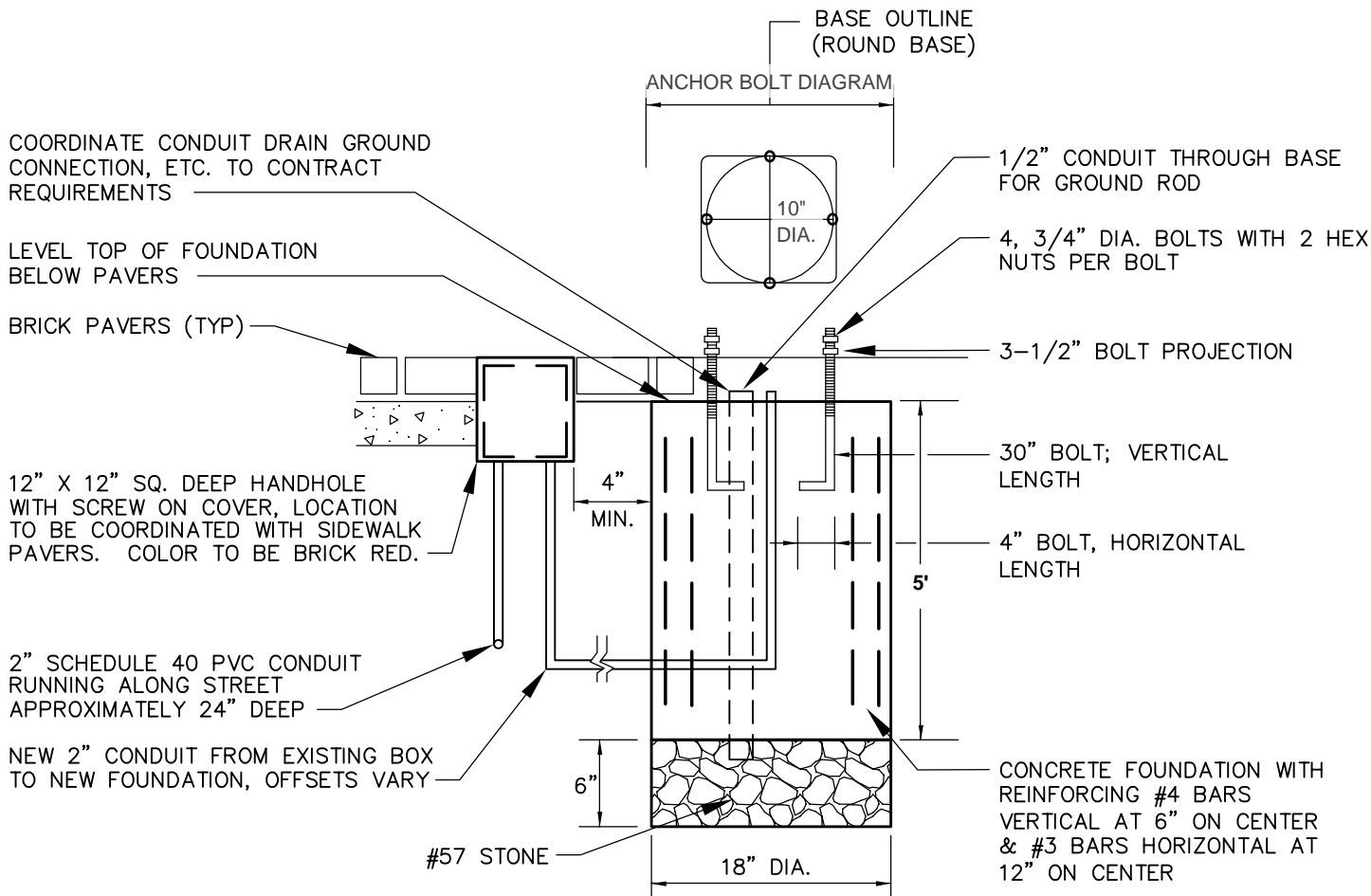
NOTES:

1. UNDISTURBED SOIL SHALL BE TILLED TO A DEPTH OF 3 INCHES PRIOR TO THE PLACEMENT OF APPROVED TOPSOIL
2. LIME SHALL BE FINELY GROUND DOLOMITIC AGRICULTURAL LIMESTONE CONTAINING AT LEAST 85% OF TOTAL CARBONATES.
3. FERTILIZER SHALL BE 13-25-12 FORMULA & SHALL CONFORM TO VDOT STANDARDS.
4. AFTER SEEDING, THE AREA SHALL BE RAKED, ROLLED, WATERED AND MULCHED IN AN APPROVED MANNER.
5. THE CONTRACTOR SHALL MAINTAIN ALL GRASSED AREAS TO PROVIDE FOR A SMOOTH UNIFORM TURF UPON COMPLETION OF THE CONTRACT.

 <p>CITY OF NORFOLK DEPT. OF PUBLIC WORKS</p>	<p>DESCRIPTION</p> <p>STANDARD GRASS PLANTING DETAIL</p>			<p>DESIGNATION</p> <p>HS-601</p>
	<p>SCALE NOT TO SCALE</p>	<p>EDITION NCDS2004.9</p>	<p>REVISED AUG. 2003</p>	



<p>CITY OF NORFOLK</p>  <p>DEPT. OF PUBLIC WORKS</p>	<p>DESCRIPTION</p> <p>STANDARD TREE PROTECTION DETAIL</p>			<p>DESIGNATION</p> <p>HS-602</p>
	<p>SCALE</p> <p>NOT TO SCALE</p>	<p>EDITION</p> <p>NCDS2004.9</p>	<p>REVISED</p> <p>AUG. 2003</p>	



POLE FOUNDATION DETAIL

NOT TO SCALE